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ABSTRACT

Using Mark Twain's "Huckleberry Finn," John Knowles' "A Separate Peace," and Maya Angelou's "I Know Why the Caged Bird Sings," a study examined the effects of Astute Activities--teaching techniques which increase students' cognitive ability and creativity--on student performance in two senior English classes in a small rural high school. Subjects, nine students from the 1984 senior class and five students from the 1985 senior class, participated in the activities as part of their English class assignments. Activities included mind mapping, brainstorming, creative writing exercises using characters from the novels, and discussions of various issues from the characters' perspectives. Cognitive ability was measured using the Language Arts Test of Cognitive Functioning (LATCF), and writing ability was evaluated with a writing pre- and posttest. Results indicated that Astute Activities stimulated most students' thinking, increased their awareness of issues, increased the creativity of their work, both written and spoken, and matured their writing. However, LATCF scores showed only slight improvement in overall cognitive functioning for both groups, and pretest and posttest scores also indicated only slight improvement in writing ability. Implications for improving rural education are addressed. (An appendix includes the LATCF as revised for seniors, pictures of student projects, sample student papers, and student evaluations. Thirty-three references are attached.) (MM)

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THESIS

ASTUTE ACTIVITIES: INCREASING COGNITIVE AND CREATIVE DEVELOPMENT IN THE LANGUAGE ARTS CLASSROOM

Submitted by

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In partial fulfillment of the requirements

for the Degree of Master of Arts

Colorado State University

Fall, 1985

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WE HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER OUR
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ABSTRACT OF THESIS

ASTUTE ACTIVITIES: INCREASING COGNITIVE AND CREATIVE DEVELOPMENT IN THE LANGUAGE ARTS CLASSROOM

The result of research conducted in a rural Colorado school, the study uses the theories of Piaget, Bybee and Sund, Arlin, de Bono, Kohlberg, and Gilligan to design activities for use with a two-novel senior literature unit. Students were pre and post tested using Edward Brazee's Language Arts Test of Cognitive Functioning to determine students' changes in levels of cognitive functioning. The two to three month unit was presented to two different groups of seniors.

Results indicate a measurable overall increase in level of cognitive functioning, and the researcher also notes other benefits from the activities, such as increased creativity, greater motivation, and increased affective response to literature. Additionally, the activities' success implies possible improvements in rural education.

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Fall 1985

DEDICATION

FOR MY MOTHER, ALICE MILLER ZINKE,
LOVING MODEL OF QUALITY TEACHING,

and

FOR MAYDA NEL STRONG, TEACHER AND FRIEND,
WHO KNOWS LEARNING IS FUN

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ASTUTE ACTIVITIES: INCREASING COGNITIVE AND CREATIVE
DEVELOPMENT IN THE LANGUAGE ARTS CLASSROOM

Americans have increased their expectations of public schools; public school teachers find that administrators, school districts, and the American government hold them accountable for what they teach (or neglect to teach), and colleges and universities throughout America say that incoming freshmen are ill-prepared to perform on level in many basic skills, including writing. An example of this phenomenon is the results from a language development test, Test of Adolescent Language,¹ given to a group of composition (CO 150) students at Colorado State University during Summer Semester, 1984. Some in this class were seniors about to graduate, and some were adults over twenty-five. All had attended public schools before college. Their performance on the T.O.A.L. was surprising, considering their ages and education. Forty-eight percent of the subtest scores were in the average, below average, and poor range, and thirty percent of the composite scores were average, below average, and poor. These scores were based on a maximum testing age of eighteen; the T.O.A.L. is intended for junior high and senior high students! The

college students' lowest scores were in listening and writing areas. Undoubtedly, some of these students and their teachers should have been doing something differently in public schools.

Other educators also repeat this need for American schools to adjust their goals and teaching methods to the 1980's. In her keynote address to the Fourth Annual Rural and Small Schools Conference held at Colorado State University in June, 1984, Telluride Superintendent Margaret Hatcher stated, "Education is at a time of... breakdown or breakthrough." According to Ms. Hatcher, American education needs to open up to new ideas and information, or the public school system will collapse. "What kids need to learn is ways of thinking."²

Works by nationally-known business and educational experts like John Goodlad and Thomas Peters and Robert Waterman continue to cause American educators to take a second look at public schools' need for change. These and other concerned educators invariably mention one particular need our students share: the need for intellectual growth. As the National Council of Teachers of English states, learning how to think is a skill closely linked to the language arts area; Colorado's English Task Force states that students learn cognitive processes largely through the discipline of English; "English teachers bear the primary responsibility for helping students learn them."³

Cognitive development, though, is not enough, according to John Goodlad. Students also need to learn creativity, to become more flexible in their thinking, learning to deal with problems in original ways. Thinking creatively enhances one's intellectual abilities. More than a trend, teaching creativity seems essential in our information-oriented society. Students need to possess as many ways of processing information and solving problems as teachers can help them discover.⁴ Teachers can help students realize that creativity and intellectual development can work hand-in-hand-- a dream for American education that requires dramatic changes from traditional educators' "fund of knowledge" philosophy.

Having extensively studied four hundred eminent personalities and factors which seem to influence creativity, Victor and Mildred Goertzel in Cradles of Eminence say that three of every five of the eminent they studied had serious school problems. With acute needs for direct, frequent communication and encouragement from teachers, this sixty percent felt teachers inhibited, rather than encouraged, their natural curiosity. The two of five who reflected favorably on their schooling said they were recognized by teachers as having unusual abilities, were given special guidance and encouragement, and were accelerated. The best teachers let them learn at their own pace and gave permission to work unimpeded in areas of special interest. They felt affection for those

adults who challenged their thinking, introduced them to exciting books, and provided materials for their work.⁵ Like many qualities of modern gifted programs, these attributes can become part of ordinary classrooms, as well.

However, fostering creativity in a classroom requires the teacher's dedication, for traditional education seems to squash students' natural desire for knowledge. Saying that creative thinking is at its peak in second grade, the Goertzels say the child is excited by learning and perceptive "to a degree that he may never attain again. The high school is a particularly barren period for any expression of intellectual vigor or originality."⁶ Many students never regain their love of self-initiated learning, and many only in college. Einstein at sixty-seven said, "It is, in fact, nothing short of a miracle that the modern methods of instruction have not entirely strangled the holy curiosity of inquiry."⁷ The highly achieving adult, they say, often takes great joy in his work, and "retains a childish pleasure in learning which may make him appear naive to the public."⁸ Facilitating such joy in learning and such creativity is a teacher's challenge.

Teachers, then, must learn new ways to teach, must themselves rely more heavily on a variety of cognitive abilities and become more creative personally, as well as professionally. To this end, a study of theories and models of cognitive development and creativity seems

appropriate. Perhaps not surprisingly, many theorists hold similar basic ideas about fostering creativity and intellectual development; therefore, each theorist I mention in this work may be perhaps one of several with similar ideas. Some provide not only theories, but also teaching models to implement cognitive and creative development in the classroom. The work of Jean Piaget, Rodger Bybee and Robert Sund, Patricia Arlin, Lawrence Kohlberg, Carol Gilligan, and Edward de Bono, in addition to Dr. Edward Brazee, who developed The Language Arts Test of Cognitive Functioning, create a solid foundation on which to base a study of the effectiveness of specific teaching techniques in increasing students' cognitive development and creativity in a language arts classroom.

Learning and applying these techniques in the language arts classroom should increase students' cognitive ability and creativity. Though some theories and classroom applications are most commonly mentioned regarding gifted students, I firmly believe that all students can grow intellectually and creatively from such activities. The rural district where I teach English 8, English 9, English 10, English 11, English 12, and Journalism/Yearbook has no gifted program; instead, our gifted students learn in the same classroom as non-gifted students. For this reason, studying any of my classes would yield results significant to me, but English 12 seems a logical class with which to conduct a study for three reasons. First, English 12 is

elective, so most of the students in this class want to be there either to prepare for college or to build on an existing interest in literature and writing. Most often, my seniors are motivated. Second, Senior English is my final opportunity to influence these students; if special benefits result from my study, the seniors deserve to receive them. Third, Senior English is more likely to contain a higher ratio of truly gifted students than any other of my classes; if a gifted student exists in a senior class, s/he likely takes English.

Lesson plans that carry out the patterns and philosophies of Piaget, Bybee and Sund, Arlin, Kohlberg, and de Bono, I incorporate for two groups of seniors into literature units each containing two novels: Huckleberry Finn by Mark Twain⁹ and I know Why the Caged Bird Sings by Maya Angelou¹⁰ in 1984, and A Separate Peace by John Knowles¹¹ and I Know Why the Caged Bird Sings in 1985. With ways to measure students' progress cognitively and creatively, the study can begin.

Instruments for measuring cognitive ability have been developed, but one seems particularly appropriate for my high school English classroom: The Language Arts Test of Cognitive Functioning¹² developed in 1981 by Dr. Edward Brazee, recently of University of Northern Colorado's Laboratory School. Different from other tests of cognitive functioning, which test students' cognitive level in math and science-related areas, the L.A.T.C.F. specifically

measures cognitive functioning in language and literature. Though the L.A.T.C.F. was intended for students at about fourteen years old, revising its anecdotes with Dr. Brazee's approval created an appropriate pre test and post test for my 1984 and 1985 senior students at Cheraw High School.¹³

The goals of my study are two-fold. First, my goal is to increase senior students' level of cognitive functioning by incorporating activities requiring reasoning abilities from Piaget's transitional and formal stages and including Bybee and Sund's extensions of Piaget's theory,¹⁴ Patricia Arlin's fifth stage (problem finding),¹⁵ Kohlberg's levels of moral development,¹⁶ and de Bono's Lateral Thinking.¹⁷ Second, I hope to encourage and increase students' creativity specifically by using exercises in "lateral thinking," but additionally with creative aspects in the other activities. Detailed explanations of the theories and their implications for teaching, correlations with rural education, the study itself, Astute Activities, and my conclusions follow.

THEORIES AND TEACHING IMPLICATIONS

Each of the educational theorists to be mentioned has made a significant contribution to the body of work concerning cognitive development and creativity. Some have built on the studies of Jean Piaget, and all have created significant educational approaches that enable teachers to consciously and systematically affect students' cognitive or creative development.

Jean Piaget. Piaget based his theory of knowledge on years of studying children's problem solving behavior, believing that wrong answers indicate a child's thought patterns. These patterns, not the answers to problems, are the key of his theory. Piaget defines intelligence as the ability to organize and adapt to the environment. The cognitive functions organization and adaptation contribute to developing the cognitive structure, which, unlike cognitive functions, vary with development. Each stage integrates the cognitive structures from previous stages into a higher-order structure. From his work with children, Piaget determined that five steps are necessary for a person to enter a new, higher level of equilibrium:

1. the cognitive structures at initial level of equilibrium, 2. an encounter requiring intelligent behavior beyond the present level of cognitive structure, 3. a disequilibrium of the cognitive structures, 4. adaptation of cognitive structures through assimilation and accommodation, and 5. the cognitive structure organized at a new, higher level of equilibrium.¹⁸

Further, the cognitive functions organization and adaptation are necessary for progressive movement from what Piaget labels the sensorimotor period (ages zero to two years) to each of the following periods: preoperational (ages three to seven years), concrete operational (ages eight to eleven years), and formal operational (ages twelve to fifteen years).¹⁹ Piaget clarifies the relationship between knowledge, learning, development, and teaching; while knowledge is adapting cognitive structures to reality, learning is modifying cognitive structures due to activity. Development is a continuous reorganization and structuring of concepts, and teaching is engaging the learner with materials that require cognitive adaptation.²⁰ A student can exist cognitively in a transitional stage between any of the four periods, and teachers, then, can facilitate students' cognitive development. Of the periods Piaget describes, the two I encounter most often in my students are the concrete operational and the formal operational periods; I also see students who are in transition and possess characteristics of both periods.

The student at the concrete operational period, which usually includes ages seven to eleven, is "the practical student."²¹ The concrete operational student is associated with practical, concrete problems. Her thought is restricted to what she encounters through direct experience. However, she is beginning to evaluate her own ideas and consider more than one factor in making decisions. She is becoming competent with class inclusion skills, ascending and descending hierarchies, the concepts of velocity and speed, and some types of conservational thought. The concrete student can visualize physical actions and engage in representative play and imitation. Socially, concrete operational students are cooperative and competitive; morally, they are rule-oriented, not understanding the need to make exceptions to rules.²² Though this stage commonly extends until grade six, I see frequent indications that many of my high school students think concretely at least sometimes. For example, in discussions about symbolism and universal themes in James Hurst's "The Scarlet Ibis," in which a brothers' conflict parallels that of World War I and an elegant red bird symbolizes one boy's dignity,²³ wide-eyed sophomores still ask, "Where did you get THAT?"

Piaget's formal operational student is called "the reflective student."²⁴ Her types of reasoning are systematic and involve logically complex processes. This student uses theoretical, hypothetical, and propositional

reasoning and is aware of errors from using mental checks and balances, a reflective skill, and can establish her own plans for long, detailed projects. In this period of cognitive development, a student can grasp double meanings in literature and read for overall themes. She can reason with contrary-to-fact assumptions and can create original thought-- theoretical thinking; the student bases theories for the future on the past. Performing several manipulations on information; imagining situations and experiments not in her own presence and describing their outcomes; reasoning both inductively and deductively; providing generalizations for specific sets of facts; and conceiving of infinity, time, space, and distant places all characterize the formal thinker.²⁵

The formal operational student carries out abstract reasoning and can solve problems requiring six specific reasoning strategies. 1. Hypothetical-deductive thinking involves the student solving a problem by formulating hypotheses and deducing conclusions from them at an abstract, symbolic level. 2. Understanding and using both ratios and proportions is one formal operational ability. 3. Using combinatorial logic means that the student will use all possible factors related to a problem in solving it. 4. The adolescent's ability to express a series of hypotheses in propositional form and reason the possibilities is propositional thinking. 5. Controlling variables involves systematic isolation and control of all

variables in a complex problem. 6. A formal operational student is also capable of establishing hierarchical classification systems similar to those in botany or library catalogue systems.²⁶ My estimate before conducting the study was that half of my senior students could perform at least most of these skills, but that at least half of them would be classified as transitional between concrete and formal operational.

Rodger W. Bybee and Robert B. Sund. Bybee and Sund, authors of Piaget for Educators, suggest special consideration for teaching students at the transitional and formal levels. They caution educators to be aware that most students eleven and older are at either concrete or transitional levels, and that some class time for social interaction and physical experience is essential.²⁷ Concerning reading, Bybee and Sund advise a focus on thinking, rather than memorization. Since children read at a cognitive level, a teacher must ensure that the reading material requires cognitive processes possible for the student. For example, formal reading makes it possible for students to look for hidden meanings, to understand abstract concepts and principles, and to understand allegory.²⁸

In Piaget for Educators, the authors also suggest that teachers follow specific recommendations in designing classroom activities, many of which appear in Astute Activities. Teachers should encourage students to use

hypothetical reasoning, propositional reasoning, and abstract thinking. Formal questioning techniques include asking abstract questions like "What was your theory?" or "What other problems come to mind?" Involve students in discussions or activities requiring synthesis and evaluation of theories, and personal positions. Challenge student positions, play devil's advocate, and argue with formal reasoning. Have students use classification skills.²⁹ These ideas alone could help my seniors.

Patricia Arlin. Arlin's study of sixty female college students at Piaget's formal operations level indicates an extension of Piaget's levels, a stage Arlin calls problem finding, which occurs at about age seventeen or later. Some of the sixty students could perform both formal operations and problem finding, while others could only perform formal operations. Problem finding skills include expressing creative views of relationships and problematic situations and using shrewd, creative methods to organize and ask questions and to give answers. Problem finding, then, is a stage beyond formal operations.³⁰ The implications of Arlin's research are encouraging. First, perhaps fostering student creativity increases the probability of that student's developing problem finding skills. Second, perhaps Arlin's findings indicate that creativity and cognition are not separate at all, that they complement each other, and that we learn them best together.

Lawrence Kohlberg. In the 1950's Lawrence Kohlberg extended and modified Piaget's 1930's work in the area of moral development. Kohlberg's work has verified Piaget's. Six stages of moral development result from Kohlberg's studies. In stage one, a person makes ethical decisions to avoid punishment. Self-gratification is important here. Stage two, seeking reward, involves a desire for personal reward or benefit and awareness of consequences. Social approval, stage three, in which the person wants to please others, requires awareness of stereotypical good and bad people. At stage four, law and order, the person is concerned with doing his or her duty to maintain the social order. Here is concern for the larger community and belief in maintaining social rules with no exceptions. In social contract, which is stage five, a person's concerns are self-respect or being irrational and inconsistent. S/he believes in free agreement and contracts between individuals, according to standards agreed-upon by the whole society. In stage six, universal ethics, right is defined by conscience according to self-chosen principles. Concern here is about violating a person's principles and maintaining principles as a way of life. This person believes in the sacredness of life and in a universal principle of justice.³¹

Kohlberg states that a person must develop reasoning skills at one stage before attaining the next stage; however, individuals can comprehend one stage higher than their present level of development. Though the stages are universal, middle class children are more likely to reason at more advanced stages than those from lower class families.³²

For the language arts classroom, Kohlberg's levels of moral development have significant implications. Perhaps, even without presenting the levels formally, a teacher can use and explain certain of these ethics as basic classroom ethics. Presenting Kohlberg's levels, however, creates even more possibilities. A teacher could explain the levels of moral development to students after they have completed writing their reactions to Bybee and Sund's "Cheating Student Dilemma,"³³ so that each student can decide his or her own personal level of moral development. Then, students could apply Kohlberg's levels to literature characters' moral development as evidenced from their reading and discuss their moral assessments of the characters and the data that defends their assessments. The levels of moral development give teachers a way to encourage students to think at each of the levels, as well as to apply their thinking to characters from literature.

Carol Gilligan. However, Gilligan's In a Different Voice (1982), questions the validity of both Piaget's and Kohlberg's theories of moral development. Piaget's idea of

children's moral development observes that girls are more tolerant in their attitudes toward rules, more willing to make exceptions than boys. He believes that children learn the respect for rules necessary for moral development by playing rule-bound games. Kohlberg believes moral lessons are best learned in opportunities for role-taking that arise from resolving disputes. On the other hand, Gilligan cites Lever's study of children's play (1976), from which she discovered that boys resolve conflicts by creating rules for that purpose, while girls often end a game when conflicts arise.³⁴ Obviously, "disputes requiring adjudication are less likely to occur for girls," and the creation of a rule system is an area in which they have little practice. Girls usually "subordinated the continuation of the game to the continuation of friendships."³⁵

Gilligan further cites Kohlberg's studies of eighty-four male children whom he has followed for twenty years. No students reach the top stage, and girls rarely score over a level three morality response (where morality is interpersonal and goodness is helping or pleasing others). Rather than validating female responses, Kohlberg deems girls' responses inadequate.³⁶ Females' conception of morality as care centers moral development around the understanding of responsibility and relationships, just as males' understanding of morality as fairness ties moral development to the understanding of rights and rules.³⁷

Gilligan cites the example of Claire, a participant in one of Kohlberg's college student studies, who was interviewed twice: as a senior and at the age of twenty-seven. Claire, as a student in Kohlberg's course, felt that she had experienced growth in the years between the interviews and that her moral judgements were more mature at twenty-seven. However, on Kohlberg's scale, she had regressed. Her moral judgements were based on human connection, the ethics of justice and care, and a community conception of fairness.³⁸ She and other women see people as being separate but interconnected, and Kohlberg's hierarchy of stages does not fit this predominantly female concept.

In interviews with women making personal decisions about abortion, Gilligan identified "the conventional feminine voice" of morality as "defining the self and proclaiming its worth on the basis of the ability to care for and protect others."³⁹ A transition from this view of traditional female morality comes often when a woman realizes "morality that condones self-destruction in the name of responsible care is not repudiated as inadequate, but is rather abandoned in the face of its threat to survival."⁴⁰ Certainly, Gilligan's studies show the need to expand Kohlberg's developmental theory to include, rather than rule out the feminine voice. This is important, not only to explain female development, but also to understand "in both sexes the characteristics and

precursors of an adult moral conception."⁴¹ With teacher guidance, students could find within this conflict opportunities for problem solving.

Edward de Bono. In his book Lateral Thinking: Creativity Step by Step de Bono explains the concept of lateral thinking, stating that it is closely related to insight, creativity, and humor. Although all four processes have the same basis, lateral thinking is a more deliberate process than the other three. Lateral thinking is a way of using the mind for a new kind of logical thinking. Creativity is often the description of a result of lateral thinking; lateral thinking is a process, not a product. Concerned with the generation of new ideas, it means changing one's attitudes and approaches.⁴²

Traditional vertical thinking and lateral thinking are quite different processes; while vertical thinking moves forward in sequential steps, each of which must be justified, lateral thinking sometimes means that one may have to be wrong at some stage to achieve a correct solution. Both kinds of thinking are essential and complementary.⁴³ "Since all effective thinking is really logical thinking, then lateral thinking is just a part of logical thinking," says de Bono.⁴⁴

Elaborating on the differences between lateral thinking and traditional vertical thinking, de Bono clarifies purposes of both:

Rightness is what matters in vertical thinking. Richness is what matters in lateral thinking.... Vertical thinking moves only if there is a direction in which to move, lateral thinking moves in order to generate a direction.... With vertical thinking one moves forward one step at a time. The soundness of the conclusion is proved by the soundness of the steps by which it has been reached. With lateral thinking the steps do not have to be sequential. One may jump ahead to a new point and then fill in the gap afterwards.... With vertical thinking one concentrates and excludes what is irrelevant, with lateral thinking one welcomes chance intrusions.... Vertical thinking follows the most likely paths, lateral thinking explores the least likely. 45

Many advantages result from using lateral thinking. First, generating new ideas can be more at one's command with lateral thinking. One can use lateral thinking with problem solving, especially with problems that need more and better ways of handling information, that need a rearrangement of available information, or that are problems of no problem, in which the present situation's adequacy precludes moving to a better situation.⁴⁶ In addition, lateral thinking changes the mind's natural patterning behavior and makes one look again at things taken for granted, challenging assumptions. Perhaps the most necessary use of lateral thinking is that it counters "arrogance and rigidity."⁴⁷

De Bono sets guidelines for using his book Lateral Thinking: Creativity Step by Step. While lower age groups enjoy lateral thinking exercises for their own sake, students older than age seven look more closely at the point behind them.⁴⁸ In learning the process, one should

try to develop lateral thinking attitudes as habits of mind, and one can as easily learn those habits practicing one technique as practicing them all.⁴⁹ "Many of the demonstrations used in this book may seem trivial. They are,"⁵⁰ states de Bono, but they make clear points about the thinking process. Like parables and fables, they become less important than the point they convey.⁵¹

Four different kinds of materials enable one to teach (or learn) lateral thinking: visual materials, verbal materials, problems, and themes. Visual materials consist of cardboard shapes patterned from the book, photos from newspapers and magazines, and drawings of scenes or people in action. Newspaper and magazine articles, spoken information from radio, recordings, and from the students themselves are the verbal materials de Bono suggests. Problems can be general world problems like food shortages, immediate problems which students provide, or design and innovation problems with requests to bring about a certain effect.⁵² Problems may also be closed problems for which there is a definite answer. Themes should be springboards-- things to consider-- and could include stories like Aesop's fables or incidents from one's own experience. A stockpile of material for themes could include any material neutral, specific, and wide enough to generate many possible ideas.⁵³

De Bono discusses a myriad of lateral thinking's aspects. Six lateral thinking skills particularly applicable to the language arts classroom are the generation of alternatives, challenging assumptions, the reversal method, brainstorming, suspended judgement, and analogies.

Generating alternatives is exploring other ways of looking at things by restructuring and rearranging the available information.⁵⁴ De Bono suggests using pictures to stimulate generating alternatives; in one method, the teacher uses an ambiguous picture and asks each person to make an interpretation of it. The teacher collects the responses without judging them, not revealing what the picture really was about. In another method, students generate a quota of different responses with the help of the teacher, who contributes some outlandish suggestions.⁵⁵ Additionally, a teacher could alter pictures by covering up part of them. With written material, students can use a written account from a magazine, newspaper, or textbook and generate the different points of view of the people involved. Or, students could change what is a favorable description to an unfavorable one by changing the emphasis and looking at it in a different way.⁵⁶ Using problems from inconveniences of everyday life or from a newspaper, students can generate alternative ways of stating the problem or alternative approaches to the problem.⁵⁷ Obviously, methods of generating alternatives are various.

Challenging assumptions is another way to teach lateral thinking. De Bono suggests a game of "why?" to practice challenging assumptions. "Why?" is different from the two-year-old child's game, because in de Bono's "why?" one asks the question even when one knows the answer. The point is to avoid thinking that anything is so obvious that it merits only a "because" answer.⁵⁸ The teacher makes a statement, and the student asks "why?" The teacher's explanation is countered by another "why?" The idea is that the student gets into the habit of assuming nothing.⁵⁹ Perhaps the challenging assumptions game could be played more as a discussion about literature with students and teachers alternately questioning the last statement. Many high-schoolers would tire quickly of a game seeming so elementary, even though it does teach one not to assume anything.

However, the reversal method would probably appear attractive to even high school seniors. Its purpose is to escape the necessity of looking at a situation in the usual way. Once reversal becomes possible, moving in any direction becomes easier.⁶⁰ De Bono cites some fables as examples of reversals, one of which is Aesop's tale of the bird for whom the water level in the jug was too low. The bird wanted to take water out of the jug, but instead put pebbles in the jug to raise the water level enough for him to drink.⁶¹ Reversals, says de Bono, are useful for what they lead to; one develops the habit of reversing

situations and seeing the results. Example situations for students to reverse are a teacher instructing students, a milkman delivering milk, going on a vacation, and workers striking a factory. In a general classroom situation, students soon see that situations can be reversed in several ways.⁶²

De Bono also includes in lateral thinking a technique familiar to many educators: brainstorming. Brainstorming rules should allow for cross-stimulation and suspended judgement in a formal situation. De Bono suggests twelve as an ideal brainstorming group size and thirty minutes as long enough for a session. The chairman's jobs are to guide the session so that all have an opportunity to contribute, see that the note taker records ideas, and define the central problem.⁶³ A followup session should be held on a later day to process ideas. De Bono adds that brainstorming in classroom groups works especially when the teacher sits in unobtrusively on the groups and adds his or her own ideas.⁶⁴

Closely tied to brainstorming is suspended judgement, which holds off judgement of ideas or steps in these areas: as to whether the information area is relevant, as to the validity of an idea in one's own thinking process (to prevent dismissing it), as to correctness before offering an idea to others, and of an idea offered by someone else.⁶⁵ Ideas live longer and breed other ideas when a group suspends judgement. An idea may even survive long

enough in a frame of reference to show that the frame of reference needs altering.⁶⁶ Essential to brainstorming, training a class to suspend judgement could have positive effects on other activities, as well. Indeed, suspending judgement has become a necessary survival skill.

Analogies, too, are vehicles for new cognitive processes, for they lead to further development. First, students can develop an analogy suggested by the teacher: for instance, finding one's way in the fog as analogous to doing a crossword puzzle. Once a class understands them, analogies become different ways to view problems. Each student can make his or her own analogy for a given problem, sharing later all the different ways to look at the problem.⁶⁷ Analogies can be done in groups or individually, finding analogies for a problem or problems to fit an analogy. Since analogies abound in literature and could abound in student writing, these ideas, too, are valid for the language arts classroom.

Edward Brazee. Dr. Brazee, recently of University of Northern Colorado, Greeley, Colorado, developed a test that estimates the level of cognitive functioning of junior high students-- to age fourteen. The six tasks on the test evaluate student interest and investigation style, reasons for events, relationships, use of a model as a theory, type of categorization, and depth of interpretation. Brazee states that educators cannot assume that formal thinkers are formal thinkers in any situation. Most existing tests

of cognitive functioning are math and science oriented and ignore the cognitive functions required of students in the language arts area.

Brazee administered to forty-eight eighth graders at the U.N.C. Laboratory School Burney's Logical Reasoning Test, developed by Burney in 1974, which tests primarily math and science reasoning abilities. Brazee randomly selected four students from each of three cognitive levels (concrete, transitional, and formal) and administered to them The Language Arts Test of Cognitive Functioning⁶⁸, to compare the results to those from Burney's test. Eight of the twelve students tested had an identical rating with Burney's L.R.T.. Of the four concrete thinkers on the L.R.T., all scored concrete on the L.A.T.C.F. Of the four transitional thinkers on the L.R.T., all scored transitional on the L.A.T.C.F. Of the four formal thinkers on the L.R.T., only one was rated formal on the L.A.T.C.F. Brazee feels that the six functions on his test, first suggested by Shayer in 1981, are essential thinking abilities in the language arts classroom, and that the L.A.T.C.F tasks are essential for language arts students to learn.⁶⁹ An advantage over other tests of cognitive functioning is that the student shows the reasoning s/he uses on the test,⁷⁰ which further carries through the Piaget's research methods. The implication of Brazee's results is that students become formal thinkers in language more slowly than in science and math.

On the L.A.T.C.F., each cognitive level shows specific and different characteristics. Concrete thinkers, for example, often base their answers on incorrect inferences; often think logically, but are tied to the present; often recognize the important information in each anecdote, but often don't know what to do with it; and often relate their answers to their own experience, becoming distracted from the task at hand. Transitional thinkers on the test use formal skills inconsistently, approach the problems more systematically than concrete thinkers, have more confidence in their proposed answers, and display "sporadic flashes of insight."⁷¹ Transitional thinkers do more inferential thinking than concrete thinkers, have a broader view of the world, and often are able to control two variables. Formal thinkers who took the L.A.T.C.F. answer in a more sophisticated and consistent style, systematically complete each anecdote, exhibit confidence in their answers, use logical inferences, and hypothesize and try out a variety of ideas and possible solutions.⁷² Interestingly, these characteristics of students on the L.A.T.C.F. correspond with Piaget's descriptions of students at each of the three levels.

For my study, I see in Brazee's L.A.T.C.F. a test not only closely related to Piaget's theory, but also a measure of student cognitive ability which enables me to evaluate before and after the senior literature unit. From telephone interviews with Dr. Brazee beginning in November,

1983, I obtained information to adjust the test for my senior students and specific suggestions for giving the test. During a personal interview, Dr. Brazee provided a "Language Arts Curriculum Taxonomy" (unpublished) to use as a scoring guide to the test, and we scored two students' pretests and post tests to ensure the accuracy of my scoring. Dr. Brazee also provided "A Cognitive Level Rating Scale for Written Responses" (unpublished), which I used to score my students' final papers for the unit.⁷³

A Basis for Research. Piaget's studies of children and their cognitive development, Arlin's and Kohlberg's extensions of Piaget's work, Gilligan's studies of female morality, de Bono's lateral thinking techniques, and Brazee's L.A.T.C.F. prove a firm foundation for research. Following a look at rural education, these ideas and the seeds of ideas for improving the teaching of English can become Astute Activities.

IMPROVING RURAL EDUCATION

When Mabel Carney wrote Country Life and the Country School in 1912, she described the country teacher's challenge to make "the country school a center for redirected education and community building."⁷⁴ Improving rural education, she said, requires "vitalizing and enriching the course of study, ...spiritualizing and improving the environment of the school," improving administration and "teaching the necessity of ...change of system."⁷⁵ An ongoing process in modern rural schools, Ms. Carney's ideas certainly have not become obsolete. Rural schools, rarer now than in 1912, have particular characteristics, weaknesses, and strengths, and continue to evolve through educators' efforts.

On October 17, 1983, Secretary of Education T. H. Bell issued a "Rural Education and Rural Family Education Policy for the '80's," stating his commitment to the one-fourth of Americans who receive their educations in rural areas. Children and adults need quality education to enter our increasingly complex workforce, and small town and rural youth must have equal access to state and federal education

structures so that they receive equal education opportunities. Further, Secretary Bell promises aid to administrators in seeking community interaction in schools, in expanding the data base and disseminating helpful information, in monitoring education program regulations, and in providing special programs for handicapped youth.⁷⁶ Government aid is essential to rural schools, but many of the most valuable changes in rural education begin with rural teachers and administrators.

Though every rural school has a unique personality, one fact remains true of almost every rural school: the school is the social institution around which the community is organized. In his study of nine rural Colorado districts, Jack Cousins found this commonality, as well as another: education is provided in rural schools.⁷⁷ Dale Carmichael (1982) finds several characteristics typical of rural education. First, rural residents believe in free public education and local control. Additionally, rural areas are sparsely populated, have small schools, and the residents have a poor general economic status, yielding often inadequate school financing.⁷⁸ Fratoe (1980) describes rural communities as often including racial and ethnic minorities less likely to graduate or attend college than city students.⁷⁹ Rural schools' diversity makes a blanket definition impossible, but researchers find in rural American schools particular weaknesses and strengths.

Carmichael notes that, because of population and economic status, rural schools tend to offer a more limited curriculum than metropolitan schools, offer fewer libraries and programs for special populations, and employ fewer support personnel like counselors and curriculum specialists.⁸⁰ He continues to describe researchers' findings that rural children consistently score below the U.S. average, regardless of which standardized test is used. The National Assessment of Educational Progress in 1974 shows rural children score significantly lower than average in reading, writing, math, and citizenship. The reason, Carmichael speculates, is the large teacher turnover rate in rural schools. He suggests as solutions competitive salaries for rural teachers, teacher education programs to prepare teachers for rural teaching, and incentive programs to attract teachers to train and live in rural areas.⁸¹

Bett and Brady in 1983 report findings from a Utah study of rural schools that motivation problems are extensive in rural schools. Students, teachers, counselors, principals, and parents alike said motivation is the number one problem in their schools. They cite six critical events that impact pupil motivation: 1. relating broader implications of the subject to students' narrower interests; 2. assigning personnel to subjects or tasks in which they have no interest; 3. failure to get students' attention because of the teacher's lack of self-confidence;

4. failure to treat students with warmth, enthusiasm, and acceptance; 5. failure to perceive true feelings behind students' behavior; and 6. failure to diagnose or respond to students' special needs.⁸² Gerome Tillman (1983), too, notes four rural conditions which hamper, but do not prevent, the pursuit of quality in rural schools: isolation, sparsity, smallness, and differentness.⁸³ Certainly, such observations frighten one into questioning the validity of rural education in general.

However, other data conflicts with an altogether pessimistic view of rural education's quality. For example, Paul Nachtigal, Director of the Rural Education Program at Mc REL in Denver, Colorado, (1980), studied fourteen rural schools and found potential strengths. Classes are smaller, allowing for more individualized instruction, and rural teachers know their students personally, enhancing student-teacher cooperation. In a small school, each student serves an important function in the ongoing life of the school. Too, teachers in rural schools often feel a sense of control over curriculum and personal teaching practices, and teachers and administrators most often feel they have the same goals. School board members are more accessible to teachers and parents in a rural district, and the minimum beaurucratic structure allows a higher percentage of resources to be devoted to instruction.⁸⁴

Randhawa (1977) and Thompson (1978) also find advantages in rural schooling. Randhawa's 1977 study for Iowa University of one-hundred-seventeen classrooms, sixty urban and fifty-seven rural, showed that rural teachers provide better instruction than urban teachers. The rural teachers asked more searching questions and rejected fewer student responses.⁸⁵ Thompson tells of successful efforts of a Meeker, Colorado, district to become flexible, saying the district has learned to cope well with limited human and material resources, maximally benefitting all students. Thompson also cites evidence from ERIC/CRESS (Clearinghouse on Rural Education and Small Schools) that rural educators are as innovative as their urban counterparts.⁸⁶

Additionally, Colorado State University's English placement examination offers another opportunity to compare rural students' performance to that of all incoming freshmen. Comparing rural students' mean essay scores to Colorado State University's mean essay score on the 1984 English placement exam, I found that twenty-six rural districts' average mean essay scores were 4.18, slightly higher than C.S.U.'s mean essay score of 4.01. Students from three Arkansas Valley rural districts averaged 4.11 on the essay score, also slightly higher than C.S.U.'s mean score. Composite scores for the rural students also differed from C.S.U.'s mean composite scores, which include S.A.T. or A.C.T. verbal score, grade point average in English, and percentile rank in high school. Composites

for the non-Arkansas Valley rural students averaged $-.10$, for the Arkansas Valley rural students $-.34$, and for C.S.U.'s mean composite score $-.57$. All of these average essay scores, as well as the average composite scores, fall in the CO150 placement, at which about seventy percent of C.S.U.'s freshmen are placed. Only five percent begin with the higher level CO150T, and twenty-five percent begin with the remedial CO101. Though an essay ranking of about 4.01 indicates some basic writing problems, a like ratio of urban students seems to have similar writing difficulties. Interestingly, though, two of the rural districts had mean essay scores of 6.00, while a slightly higher ratio of urban districts showed such consistently high scores. Upon individual comparison, most rural districts seem not to send C.S.U. students whose writing abilities appear as impressive. Of course, mediocrity in communication skills as essential as writing is neither desirable nor acceptable, and public schools' writing programs require major improvements. Even so, rural students seem competitive with C.S.U.'s general freshman population.⁸⁷

Interestingly, the CO150 students who participated in the T.O.A.L. testing mentioned before, also provided information on their high school backgrounds. Of eighteen students who both took the T.O.A.L. and provided information about their high schools, only one came from a rural high school. The urban students' average scores were eleven, or in the average range for eighteen-year-olds. Of

the urban students, the highest average scores were sixteen (one student) and fifteen (two students), both of which are in the above-average range for eighteen-year-olds. The one rural student achieved an average score of sixteen, above the urban average, and equal to the highest urban student's score. Of course, having a more complete sampling of rural students would create more valid results; however, this particular sample shows this rural student competitive in language arts areas with her urban peers.

Carmichael's reports of rural students' inability to perform as well as urban students on standardized tests does not hold true in some rural districts. Cheraw School's students, from first through twelfth grades, rank above both the Colorado norm and the national norm in performance on the Iowa Test of Basic Skills and the Iowa Test of Achievement and Proficiency. Cheraw's 1985 I.T.B.S. and I.T.A.P. average percentile, compared to the national fiftieth percentile, is 83.67. Fifty to seventy-five percent of our high school juniors and seniors take the A.C.T., a far higher percentage than in most urban schools. Even so, Our students consistently score above both Colorado and national average composite scores. In 1983, our students' average composite score was 20.8, while the national average was 18.3 and the state's 19.5. In 1984, Cheraw's average composite score was 20.7, while the national was 18.5 and Colorado's 19.7. Again in 1985, our students' average composite score was 20.8, but national

and Colorado average scores have not been released. Certainly, Cheraw students and teachers are doing something right, but that does not negate Cheraw's need to continue to improve curriculum and instruction.

On the surface startlingly contradictory, these observations and research results clearly show a truth about rural education: all rural education, like urban education is not good or bad. Certainly, as with education in general, problems exist and require attention. States Tillman, certain conditions are necessary for quality rural education: an attractive, pleasant building and climate conducive to learning, strong leadership from teachers and administration, a core curriculum which reflects the culture and values of the community, high academic expectations, and the use of standardized tests to measure progress and plan improvements.⁸⁸

Both Paul Nachtigal and Jonathan Sher, author of Rural Education in Urbanized Nations: Issues and Innovations (1981), believe community-based reform to be the most effective way to improve rural education. Often, Nachtigal states, decisions made at the federal and even state level are inappropriate for rural schools.⁸⁹ While most rural communities reject quantity and diversity of offerings as a priority value, they tend to assess program quality in terms of outcomes, rather than inputs.⁹⁰ The most useful rural programs are those both school and community view as important, and those rural education programs with the

greatest success pursue a change process which harmonizes with the operating style of the local culture.⁹¹ Both Sher and Nachtigal believe that quality rural education must convey the community's identities and values, the aim being "to adapt, to combine, to create a hybrid from outside areas and local needs which will suit a particular community at a particular time,"⁹² a concept which Nachtigal visualizes as a bridge between segments of society.⁹³

Rural schools will continue to survive, opines Nachtigal. He envisions a more hands-on curriculum for future rural schools, for rural students have access to "the real context of learning."⁹⁴ Offering students such hands-on experiences, enhancing and encouraging students' creativity and cognitive development, will be as powerful vehicles for improving rural education as federal and state programs designed for the same purpose. Just as revolutions begin as gressroots movements, individual teachers, by innovating their teaching methods, can contribute vast improvements to rural education. Such is the purpose of Astute Activities.

THE STUDENTS

Senior English for the class of 1984 at Cheraw High School included nine students. All of them except one I had taught since their sophomore year. In our rural school district, Senior English is elective, and my class usually consists of highly motivated students. The class of 1984 had high academic ability, above average compared to most classes, and its students possessed leadership abilities; these nine students have high potential.

Angie is a Little Britches Rodeo star. She spent her time outside school playing every one of Cheraw School's sports and practicing barrel racing and goat tying. Angie has significantly above average intelligence, and her school grades reflected that. A self-motivator, Angie did many things well. Attractive, she managed to remain popular though she often resisted peer pressure to act against her personal values. In English, Angie has impressed me with her will to do the best work she can; her writing shows precision in word choice, and her writing voice is honest. Angie is competitive, and her senior plans included college the following year.

Although Bill was only eighteen as a senior, he looked five years older. Bill, too, has a strong will to succeed-- as an auctioneer. Bill's father is an auctioneer, and since Bill was in grade school, that career has fascinated him. By middle school, his classmates say, Bill was as good as his dad; that certainly is true now. Bill wanted to drop out of school before his senior year, but his parents wouldn't allow that. Bill's values do not include English as a subject area; my challenge was to do my best to keep him interested enough to survive the year. Bill has above average intelligence and verbal language fluency. In terms of professional goals and confidence, Bill ranks high.

Brad is the one student in this class that I can safely label gifted. Brad's imagination, quick wit, and shrewd observations about writing and literature have challenged me since he was a sophomore. Unfortunately, Brad's interest in high school waned near the end of his junior year; he states the cause was more the routine of high school than subject matter itself. As a senior, he felt ready for a college routine; his grades fell to a low "A" from his usual ninety-eight percent average, and he turned in late much of his work. Brad's writing shows flashes of insight and a wonderfully lively and warm style. Brad helps his parents at the printing company they own and participated in every one of Cheraw's sports, an area where his competitiveness remained.

Jeannie is an attractive member of the class of 1984. With her friend Tammy, Jeannie took English to fulfill graduation requirements for speech, which she could not take because of her vocational training schedule. Jeannie is of average intelligence, and she often found English assignments and writing difficult to do. She becomes easily frustrated. I saw Jeannie as a person searching for many things-- values to trust in, a way to make a living, and something to make life interesting. Jeannie sometimes played sports for Cheraw School, and she worked as a waitress when she wasn't involved in sports. Jeannie's grades in English had usually been in the "C" range since her sophomore year.

Kathy was one of the hardest working seniors in the group. Though her academic abilities are above average, she struggled through a challenging senior year with physics, calculus, government, speech, and English. An "A" and "B" student, Kathy earned every good mark she received. Since her sophomore year, her writing contained sentence structure and organization problems, which she had difficulty correcting; even so, with each writing assignment, we worked on those problems together. Not an athletically talented person, Kathy nevertheless played basketball; she thrives on challenge. Kathy was headed for college after high school.

Lea has significantly above average intelligence and is talented athletically and academically. Lea strives for perfection in her writing and often achieves it. Lea is a sensitive person who writes poetry prolifically and continues to share some of her poetry and her thoughts with me. Lea won first place in Otero Junior College's annual creative writing contest with a critical essay on Poe's "The Cask of Amontillado." One of the most highly motivated students in the group, Lea's classload, like Kathy's, was challenging, and her plans were for college at the School of Mines.

Tammy is the student in this group who consistently scored extremely high scores in English and writing, both on the A.C.T. test and on yearly achievement tests, and who, ironically, placed little confidence in her language abilities. She, also, took English as a substitute for speech. Her intelligence is above average, and for most of the school year, her plans for the future were uncertain. Tammy is a talented essay and short story writer. Now, she is attending business college.

Todd is a likable young man of above average intelligence and academic ability whose method of operation in English class from the time he was a sophomore had been to feign limited writing and reading abilities; Todd has a wonderful sense of humor and is a John Wayne type of "good guy." Todd took English because of his plans to attend Otero Junior College. A football and basketball star, Todd

spent much of his time on athletics. In addition, Todd worked part time at one of La Junta's livestock sale barns and juggled a schedule of school, work, and athletics as a senior.

Vicki is the student new to Cheraw High School her senior year. A city dweller before Cheraw, and Milwaukee's first female high school football player on a previously all-male team (an accomplishment which won her "Real People" fame), Vicki has confidence and worldliness that set her apart from the rest of the students. Those attributes made her writing more sophisticated and the ideas she introduced to class discussions more wise. Vicki's plans were to attend college on an athletic scholarship, but a knee injury postponed those plans, and her plans to become a chiropractor. She now works full time as a cook and attends Otero Junior College part time.

The class of 1985 began the unit in January with six students but ended it with only five. Lee, the student who left school completely in March, is a gifted underachiever who routinely fails his classes. I had hoped Lee would complete the unit, because his reactions to the activities and his creative and cognitive performance would have been especially valuable, considering his potential. However, since I have no post test or final paper from Lee, for research purposes, including his pre test score would not be appropriate.

As a whole, the class of 1985 was quite different from the previous seniors. Having taught this group since they were freshmen, I was aware of their general indifference to things academic. Perhaps to a certain extent the result of being a class that had been together since kindergarten, perhaps also being compared to the academically talented class of 1984, these seniors had earned a reputation from their early elementary years as being discipline problems, particularly skilled in power struggles. With all thirteen of the class together, problems existed in all of their classes; split into smaller groups in separate classrooms, classtime was more productive. Eight of the nine boys in the class are the youngest of their siblings, and more than half of the parents blamed the school for their students' problems. In 1984, when the students were juniors, my attempts to institute an ordinary contract system for grading failed because seven students and their parents refused to sign the contract. For situations and classes like this, rural schooling is clearly a disadvantage, because splitting the class for required subjects was impossible for scheduling reasons; most schools of Cheraw's size cannot offer two sections of Junior English, for example, because the only English teacher's schedule is full, as are those of the other teachers. In a school of eight hundred students like La Junta High School, for example, these students probably would not have felt such a profound need to prove their power as a group.

Senior English with this group was productive, because the class was split, with only six of the thirteen taking English. Having for three years taught all thirteen together, I felt classroom tension ease, and I sincerely believe the five who finished the year benefited from Senior English. Obviously, I was much more apprehensive about this group's reaction to the unit, but at the same time I felt the results would be of particular significance, considering the contrast between the classes of 1984 and 1985.

Mark M. is a student of average intelligence who says he took English because he couldn't be a teacher's aide that hour; however, I still believe other reasons existed, including his love of writing poorly constructed but humorous poems and of using his canny perceptions of characters from literature. And, I think he was curious about what English would be like without all of his classmates. Though Mark came very close to failing averages during the year, he always redeemed himself with late assignments and passed, despite late points deducted from his grade. He did the assignments that sounded fun and ignored as long as possible the ones that didn't. Quiet and impressionable, Mark found some learning fun, but his future was uncertain. College was not an option, but he did participate in an auto mechanics program his last two high school years, and he may be hired to help some of his relatives who are engaged in farming and trucking.

Mark P., of slightly above average intelligence, had always been an outsider in his class. With his crew cut and his army boots, he is a natural for the military career he chose in grade school. Determined to make the best of his schooling, Mark took an instant liking to drama and writing his freshman year. In a class of boys who smirked and girls who giggled at his powerful acting skills, Mark pretended blissful ignorance of them and continued to be the best actor in the school. As a junior, Mark won fourth place in the Colorado Disabled American Veterans Journalism Contest, honed his writing skills, and won second place in the state his senior year. Mark is, indeed, beginning his Air Force career in August, 1985.

Pam, a very gifted student and athlete, spent most of her school years torn between fitting the class personality and performing in school at her ability level. Her parents' support often gave her the courage to do her best. Pam doubted her potential and reacted with surprised pride when I praised her writing. As a senior, Pam set her goals high; she wants to become a lawyer, or at least a paralegal. She will be attending a Kansas college in fall, 1985.

Shawn is an intelligent young man, a leader. Impish and handsome, Shawn is the standard of measure for the others in his class. A Little Britches rodeoer, Shawn and his father even competed in calf roping at the 1984 National P.C.R.A. Championships in Saint Louis. Like

several others in his class, Shawn survived joining this class in sixth grade by denying his intelligence. Indeed, Shawn fooled me when I first taught his class. His denial stunted his development in many areas-- writing, reading, creativity, thinking, and self-discipline. I think we both saw Senior English as a much-delayed opportunity to develop skills he needed. Not surprisingly, Shawn found changing his habits difficult, and, frustrated, he considered dropping English at semester break. He continued the class and began to show more pride and confidence in his writing, the best of which was always spontaneous, with little time to consider how he should do it. We were both pleased with his progress by the end of the year. Shawn was undecided about future plans, but he may attend Otero Junior College.

Terri is also intelligent and a Little Britches Rodeo star. Her parents encourage this discipline; Terri's mother works, she says matter-of-factly, to pay Terri's rodeo entries, to buy quality horses, and to keep Terri from having to spend her practice time (all day weekends, and three hours school days) working at another job. This is a farm family with five children, and Terri knows well the value of her parents' gift. Like Pam, Terri profoundly felt the conflict between her class's and her parents' expectations of her. Competent enough to earn A's in English, Terri was happy with B's. An avid reader, especially of Stephen King's novels, Terri read at least three novels for every book report I required. Her writing

shows bursts of imagination unequaled in her class; even her most routine essays sparkled with wit and imagination. During her sophomore and junior years, Terri wanted to become a veterinarian, but she now plans to attend Lamar Community College in a horse breeding program.

To more completely understand these students, one must realize the Cheraw community's uniqueness from other rural communities. In many ways, Cheraw is similar to other rural Colorado communities; area residents include farmers and ranchers, professional people who are retired or commute to La Junta where they work, and a significant number of blue collar workers and housewives. The most unique aspect of the Cheraw community as a Southeastern Colorado community is that while other area schools have a Mexican-American population of close to fifty percent, Cheraw's is probably close to five percent. Exploring the reasons for this phenomenon is a task no one has undertaken to date, but this situation encourages in many families and social groups an intolerance of culturally different people. These attitudes affect Cheraw School students and become obvious in classroom discussions and other school activities; these seniors in 1984 and 1985 were no exception, and that fact influenced my initial choice of novels for this unit. 1984's seniors spent twelve weeks on novels about black Americans, and 1985's four weeks.

THE PROCEDURE

I prepared the two senior groups for the unit by explaining that I would be using activities different from those typical of most units, and that they would be doing some non-traditional kinds of thinking, writing, and creating. The pretest's importance, I emphasized, was for research on this particular literature unit. I prefaced the pretest, four of Dr. Brazee's anecdotes in 1984 and three in 1985, by saying that more important than their answers would be their carefully recording the reasoning behind their answers. Rather than spend almost an entire period the first day on the pretest, we accomplished it on two separate days, using twenty minutes each day. Student reaction to the test both years was less than enthusiastic, which I attributed to two possibilities: some students' general lack of motivation and the absence of a grade or tangible product from the test. I think their reactions would have been different, for instance, if I had administered the tests orally and individually, as Dr. Brazee did, and if the scores were to appear on their permanent records, as yearly achievement test scores do.

I taught each of the novels as separate units, although during the second novel, I Know Why the Caged Bird Sings, discussions and activities included aspects from both novels for comparison and contrast and for generalizations. Included in each unit were some class periods devoted to reading the novels, writing the final paper, and discussions not included in Astute Activities. None of the Astute Activities was presented on more than one occasion, although some activities involved time periods of more than one class period. Some class periods consisted of a combination of Astute Activity, discussion, reading, or writing. At least half of the novel reading I assigned as homework, and some Astute Activities and writing assignments involved homework. Cheraw Schools operates on a four-day school week, with class lengths of almost exactly one hour; these facts, plus a homework schedule which provides for two homework nights per class, affected planning the unit. In many cases, students were aware of the sources of and purposes for Astute Activities.

The work of the theorists mentioned previously indicates many more possible Astute Activities which could supplement the ones accomplished in these two units. Certainly, the specific activities these seniors accomplished present ideas for developing additional Astute Activities.

For the post test, the students spent ten minutes at the beginning of three separate school days to complete the three anecdotes in the post test. To my pretest instructions, I emphasized the importance of complete answers and explanations of their reasoning.

ASTUTE ACTIVITIES

Each of the following activities' titles appear as subheadings. Following a description of the activity are theoretical rationale and outcomes of the activity. The Astute Activities appear in the general order of their use in the unit. Activities for Huckleberry Finn are marked "**", and ones for I Know Why the Caged Bird Sings are marked "#".

Because 1985's seniors had read Huckleberry Finn as eighth graders, and because their reaction to rereading it was less than enthusiastic, for Huckleberry Finn I substituted A Separate Peace by John Knowles. For several reasons, the novel appropriately replaces Twain's novel. First, it, too, chronicles a young man's growing from innocence to maturity; it, too, deals with male friendship; and, as in Huckleberry Finn, morality is a central issue. Using 1984 models for "Astute Activities," I adapted them for use with A Separate Peace. Those activities so adapted are marked with the symbol "+" after the initial symbol, and the activity's discussion includes information about the adaptation, as well.

*Mark Twain-- an Introduction. Students give input about their previous knowledge about Twain, which the teacher writes on the chalkboard. Since senior students have already studied many Twain selections and seen films about his life, the basic knowledge they contribute is complete. The purposes of this first exercise are to recall that basic knowledge about Twain and to broaden their views about Twain and his life. Using their outline on the chalkboard, the teacher adds more information about Twain's life: his tours of the world, his sour business dealings and subsequent lecture tours, the death of his daughter Suzy, his involvement with the supernatural, his views about religion and America, the death of Olivia, and the existence and content of some of his later and unpublished works, including poetry. The teacher then reads Twain's "The Story of the Bad Little Boy"⁹⁵ to them, asking for student input concerning the object of satire, Twain's view of religion, and his use of humor, mentioning that this was one of Twain's early works. Reading "A True Story"⁹⁶ and "The Man That Corrupted Hadleyburg"⁹⁷ is the assignment for the next day, along with readiness to discuss themes, satire, humor, and Twain's views of humankind from the stories.

The next day's agenda involves first discussing each of the stories and their above-mentioned aspects, followed by a comparison of the stories in order of the date they were written.

Rationale: Aside from providing a more accurate view of Mark Twain and a history of his works as a springboard to Huckleberry Finn, this exercise also requires students to think both concretely (content of the stories) and formally, (theme and other inferences from the stories), as Bybee and Sund suggest. Too, the exercise usually forces students to challenge untrue or partly true assumptions they have made about Twain (that he was really only a "funny man," that his work is not profound, and that Twain's works are mainly for young children), a thinking skill de Bono deems necessary. This can also create the disequilibrium that Piaget says is necessary for cognitive development.

Outcomes: Invariably, students find that they did not nearly know the depth and range of Mark Twain and his works. Reading such a variety of Twain's stories as one assignment helps students make the comparison of his themes and tone at different periods. This prepares them to look for similarities in Huckleberry Finn, rather than just to perceive the surface adventure story.

*+The Widow Douglas's Speech. This is a two-part writing assignment. First, students write the speech Mrs. Douglas would give Huck if she were to meet him on shore after his "death," making the words, phrases, and sentences sound as though they came directly from the Widow's own mouth. Then, the students imagine an adult relative or

friend of theirs to be Huck's guardian and write the speech s/he would make to Huck if s/he were to discover him on shore behaving in an "uncivilized" way.

Adapted for A Separate Peace, students write the speech Mr. Patch-Withers would have given to Finny and Gene if he had caught them jumping from the tree. With some indications early in the novel of Mr. Patch-Withers' demeanor and phrasing, students are to make his speech and actions as authentic as possible. Then, students imagine a parent or relative of their own to be Gene's or Finny's guardian and write the speech s/he would give if s/he were to discover them jumping from the tree.

Rationale: This assignment involves propositional thinking and contrary-to-fact assumptions, both mentioned by Bybee and Sund. Generating alternative ways to view Huck's, or Gene's and Finny's, situation and adults' reactions is another skill necessary to this activity, one that Edward de Bono states is necessary for lateral thinking.

Outcomes: Both classes enjoyed this assignment. Writing as someone else is often easier than being oneself. Most of the students captured the Widow Douglas's and Mr. Patch-Withers' voices well-- better, in fact, than they did voices of their own parents. Students in both groups rehearsed their speeches to each other, receiving feedback about their similarities to the characters' speech.

*+Huck's, Jim's, and Pap's Values. This activity uses a skill that Tony Buzan explains in Use Both Sides of Your Brain.⁹⁸ Mind mapping, according to Buzan, allows the right (artistic and creative) hemisphere of the brain to contribute to creating an "outline." The instructor asks students to write an outline for a ten-minute speech about space travel, a task invariably frustrating when they use the regular vertical outline form. Then, the instructor uses some of the students' ideas to make a mind map, similar to a spider outline, demonstrating that mind mapping makes the task easier.⁹⁹

Following the introduction to mind mapping, the teacher asks students to contribute to three separate mind maps: one about Huck's values, one about Jim's values, and one about Pap's values. In 1984, while students suggested particular values and where they belonged on the mind map, the teacher recorded the suggestions on three large sheets of butcher paper, one for each character, asking students to cite specific details that verify each value. The mind maps remain in the classroom throughout the unit, and students use them as reference material often and add a few new ideas to them.

Adapted for A Separate Peace, students first made the mind map on space travel and then made three individual mind maps-- one on Devon School's values, one on Finny's values, and one on Gene's values. The next day, a composite mind map was made from the students' ideas and

the resulting giant mind maps and their contradictory elements discussed, with contradictions resolved or included since some values, in fact, contradict each other. As in 1984, the giant mind maps remain in the room for the rest of the unit.

Rationale: This activity requires abstract thinking and also ties that thinking to concrete details, forming a bridge between concrete and formal thinking patterns. The activity also requires classification skills, inductive reasoning patterns, and abstract reasoning, all of which Bybee and Sund say typify formal thought.

Outcomes: The 1984 students struggled with Huck's values, probably because they conflict. Two separate mind maps could be made for Huck. However, Jim and Pap seemed easier for them. Having the mind maps in the room throughout the unit proved an advantage over taking notes on the information, because the maps were attractive and unique. The mind maps also became reference points for class discussion of the novels. Copies of the students' mind maps appear in the Appendix.

1985's seniors also enjoyed making the mind maps, commenting that mind mapping is easier than traditional outlining. They, too, had trouble expressing Gene's values, because his values conflict, and because Gene is searching for values in the novel. Copies of some individual mind maps appear in the Appendix.

*+Huck's Conflicts. The students, who are approximately through half of the novel by now, break into groups and brainstorm a list of all the conflicts with which Huck is faced so far in the book. The students understand that brainstorming involves suspending judgement of students' ideas and listing any idea that comes to mind. Each of the two groups of seniors use each others' ideas as inspiration for even more ideas, as the teacher circulates to give input and make sure the rules of brainstorming are being carried out. After about fifteen or twenty minutes, the recorder of each group writes all their ideas on the chalkboard for all to see. Both students and teacher work to eliminate duplicate conflicts and make even more suggestions to add to the list. The next day, students and teacher evaluate the list and mention examples from the book showing that the conflicts listed are valid.

Adapted for A Separate Peace, students brainstorm the conflicts with which Gene is faced in the novel. Since, like Huck, Gene feels torn between his feelings and his interpretation of good and evil, this activity works well with A Separate Peace.

Rationale: Several of Bybee and Sund's recommendations appear in this exercise: abstract thinking based on concrete examples, both inductive and deductive reasoning, and discussion of personal positions. Edward de Bono's lateral thinking students use here by generating alternative ways to view written material (different

students' input), brainstorming, and suspended judgement. When the students make judgements the following day about the conflicts, they also use de Bono's challenging assumptions.

Outcomes: The students' initial reaction after the group brainstorming sessions was amazement that a character could face so many conflicts in one novel. They realized that Huck and Gene are not "in a tight spot," so to speak, but are "in several tight spots." Another value of the exercise is that it helped students become more sensitive to the main characters' situation and the many ways in which he feels torn emotionally and morally. With that background, I felt they could more easily understand the main characters' actions through the rest of the book.

+Gene or Finny in Cheraw. This activity was added for 1985's seniors. Students are to imagine either Gene or Finny to be a student at Cheraw High School. They are to imagine one specific situation and describe the situation and how Gene or Finny acts in the situation. Students are encouraged to use dialogue to make the character as realistic as possible.

Rationale: This activity involves making contrary-to-fact assumptions and using propositional thinking, both ideas of Bybee and Sund, and students generate alternative ways of viewing a fictional character, carrying out a lateral thinking skill.

Outcomes: Students responded well, and they particularly enjoyed this kind of assignment. Though challenging, it is also fun. Mark M. and Mark P., and Terri, especially, write well when imagination is essential. Two sample student papers appear in the Appendix.

*Twain on Society and the Sublime. The teacher gives students information about what Santayana called the "genteel tradition" of Twain's period, asking for student contributions of "genteel tradition" examples in Huckleberry Finn. Then, the teacher introduces the concept of "the sublime" in literature, asking students to contribute examples of "the sublime" in Huckleberry Finn. Ideas central to the "genteel tradition" and "the sublime" the teacher writes on the board, as well as students' contributions of examples proving their presence in Huckleberry Finn.

Rationale: This activity involves using abstract thinking as well as concrete examples. If the teacher uses appropriate questioning techniques, students may become aware of specific examples from the novel that relate to the new concepts. Introducing the concepts provides the disequilibrium that Piaget deems necessary for cognitive growth. Of de Bono's suggestions for lateral thinking, this activity asks students to view written material (the examples they provide) in yet another way.

Outcomes: This exercise seemed to my students less "different" from my usual teaching patterns. The seniors participated in the activity, and, though most of them were able to discuss the concepts of "genteel tradition" and "the sublime," their reactions to the activity were without the spark of enthusiasm I had noticed with some of the more non-traditional Astute Activities. The next presentation of this exercise should happen, I think, on a different format from my usual lecture-discussion format, perhaps using a film or some resource material from Santayana.

*Huck's Views of Civilization and Objects of Twain's Satire. The teacher assigns either "views of civilization" or "objects of satire" to individual students. Each student draws an individual mind map on a sheet of butcher paper. This mind mapping must be done individually and cannot be shared until everyone is finished. Time allowed is about twenty minutes. The teacher circulates during the activity, giving both feedback and encouragement. When everyone finishes, students share their mind maps with the class, explaining reasons for including specific elements. Both teacher and students make comments and ask questions during the presentations.

Rationale: Again, students must think inductively in processing the assignment and must use some abstract reasoning. Also, the teacher's formal questioning techniques utilize Bybee and Sund's ideas for encouraging

formal thinking. The alternate to vertical outlining and vertical thinking, mind mapping follows lateral thinking's disregard for logical steps. Sharing the students' ideas in no particular order helps them make observations they might not have made otherwise.

Outcomes: The seniors responded enthusiastically to this activity and showed progress in mind mapping skills. They did generate some original ideas. I considered the activity a success. A sample paper from this activity appears in the Appendix.

*Steven Bots Dead of Drowning. Preparing for this assignment, students contribute to a chalkboard list of poems and anecdotes Twain uses in Huckleberry Finn and speculate Twain's possible reasons for including them. Students then read the teacher-written newspaper account, written in the journalistic style of the 1880's and inspired by Emmeline Grangerford's poem about Steven Dowling Bots. They choose one anecdote or poem from the novel and tell it from another point of view, that of another character in the book, or the viewpoint of a character the student invents for the exercise. Students keep in mind that mood, voice, syntax, diction, and possibly dialect, will change with point of view. It is kosher to add information that another character might know about the situation. The sample given students follows:

STEVEN BOTS DEAD OF DROWNING

Having been missing for sixteen hours Saturday, Steven Dowling Bots of Bradley was discovered early Sunday morning, floating face-down in Edgar Murray's well.

The thirteen-year-old lad disappeared Saturday afternoon after a family spat. When the lad did not arrive home at the dinner hour, Mrs. Bots and some neighbors went searching.

At about 6:00 A.M. Sunday, Harvey Wilson happened to check the Murray's well and found young Steven floating in it. Mr. Wilson dragged Steven out with a rope and tried to revive him to no avail.

It is well to note right here that Steven and some other young ruffians have been known to cause trouble for the peaceable citizens of Bradley. The boys are said to have been terrorizing families' pet cats Friday night.

Rationale: This activity encourages students to become more aware of mood, voice, syntax, and diction in Twain's writing and their own. It requires a contrary-to-fact assumption, propositional reasoning, and abstract thinking. It also encourages students to generate alternate ways of viewing written material, following almost exactly de Bono's activity for that area.

Outcomes: Student reaction to this activity was enthusiastic both years. They enjoyed manipulating words to create a different effect, and they shared their poems and anecdotes in progress, laughing over each other's and suggesting possible improvements. The results of the activity were encouraging, and a copy of one student's anecdote appears in the Appendix.

*+Symbols in Huckleberry Finn. This activity is a discussion with both student and teacher input about the symbols Twain includes in the novel. Contributions appear on the chalkboard. The teacher encourages students to do more than list symbols-- to carry the symbols and the corresponding abstract concept through as an analogy, if possible. For example, Huck's feigning his brutal death is a symbolic suicide, complete with reasons for suicide (Pap's brutality and Huck's unwillingness to accept the Widow Douglas's ideas of civilization) and the escape to a supernatural world of sorts (the river's bliss and Huck's brotherhood with Jim).

Adapted for A Separate Peace, students contribute symbols from the novel and carry them through as analogies, if possible.

Rationale: "Symbols" encourages students to think abstractly and vocalize their own theories about symbolism in the novel, both skills Bybee and Sund say are essential to learning formal thought patterns. Secondly, carrying out the symbols as analogies is another method of thinking laterally.

Outcomes: Students performed well with this activity, extending some symbols from the novel as analogies. 1985 seniors particularly enjoyed manipulating Devon's two rivers as symbols, completing analogies using various characters' links to the rivers.

*+Huck's Social Hierarchies. Following discussions of the conflicting messages Huck receives from his heart and his head, students divide into two groups, and each group draws two social hierarchies for Huck: one for his heart and one for his head. After about twenty minutes, the students present their hierarchies, compare their ideas, and ask questions about reasoning behind some of the placements of social groups. For followup assignment students to draw their own social hierarchies.

Adapted for A Separate Peace, the exercise was conducted in a similar way, with one group drawing Gene's social hierarchy and the other drawing Finny's.

Rationale: As Bybee and Sund suggest for formal thinking, this activity encourages abstract thinking and classification skills. Encouraging lateral thinking and creativity, the activity requires an understanding of Huck's, or Gene's and Finny's, conflicting beliefs.

Outcomes: Students reacted favorably, finding they had to divide some social groups into subgroups. For example, Huck viewed some "niggers" differently than he did Jim, as with the Grangerford's slave and Jim. They made some new observations about Huck's "dual personality."

With Gene and Finny, students initially protested the two hierarchies were the same, but as the groups explained their hierarchies, they realized that Finny's integrity and Gene's jealousy made the two hierarchies contrast.

*Huck's Moral Triumphs and the Phelps Evasion Sequence.

Students discuss Huck's moral triumphs in the novel, and all new ideas a recorder writes on the chalkboard. The teacher introduces the concept of Huck's level of awareness of his decisions' rightness. Second, the teacher elicits from students exactly what they think the Phelps evasion sequence proves about Huck and his moral triumphs, and whether they think those chapters are realistic in view of Huck's triumphs. This activity ends with a writing assignment-- a paragraph evaluating the Phelps evasion sequence and Twain's possible reason for including it.

Rationale: Following Bybee and Sund's suggestions, this activity involves abstract thinking and evaluation of Twain's inclusion of the sequence.

Outcomes: Student responses showed their serious thought about this section; in many cases, the students mentioned feeling frustrated with the Phelps evasion sequence and were able to explore the reasons for their feelings. However, I think the exercise would be improved by having students write a paragraph evaluating the sequence before speculating Twain's reasons for including it and a second paragraph evaluating the sequence after the class discusses as a group Twain's possible reasons. This would allow students to compare or contrast their viewpoints both before and after the class is influenced by others' observations of the sequence.

*+Draw Huck's Conscience. With Magic Markers, students separate into small groups and draw Huck's conscience. The drawing may include anything, but must not include more than five words; most of the description should be drawn, not written. The instructions for this exercise are deliberately broad, so that students are free to draw Huck's conscience in any form they think appropriate. While some may draw Huck's conscience as a product of other characters' or society's influences, some may use symbolic colors or shapes and produce ingenious ways of viewing Huck's conscience. A followup activity could include students drawing their own consciences.

Adapted for A Separate Peace, students drew Gene's conscience, following the same guidelines as for Huck's conscience.

Rationale: The activity encourages creativity and lateral thinking in that it forces the student to describe conscience in a new way-- alternate ways of viewing a concept. Because students create a new product from existing information and make decisions about what is important in Huck's conscience, the activity also asks students to use formal level functions.

Outcomes: The imagination and variety of the 1984 groups' responses was impressive. Each group's drawing illustrated different patterns of thought, and the seniors enjoyed viewing each group's original ideas. Sharing their drawings from the activity, students realized even more

alternate ways of viewing the concept of conscience. Pictures of the students working on this assignment and of their results appear in the Appendix.

In 1985, student response was not as imaginative, but the two groups' drawings showed thought, and they discussed the similarities and differences in their perceptions of Gene's conscience.

*+Huck's Level of Moral Development. Students receive copies of Kohlberg's "Cheating Student Dilemma,"¹⁰⁰ read the anecdote, and write a paragraph explaining what they would do about the situation. The teacher then gives students a handout showing examples of reasoning from each of Kohlberg's stages on the "Cheating Student Dilemma," and the teacher explains Kohlberg's theory and the examples.¹⁰¹ Students compare their own answers to the "Cheating Student Dilemma" and determine which of Kohlberg's levels their own answers exemplify. Then, the teacher asks students at which of Kohlberg's levels Huck would be. After some time to jot their answers and supporting examples, each student explains the level s/he chose. A discussion of the students' ideas follows, with students giving reasons for agreeing or disagreeing with individual ideas on the topic. However, in light of Carol Gilligan's research showing Kohlberg's scale effective only in measuring traditional male morality, the exercise requires revision to allow for explaining and using the female voice, as well.

Adapted for A Separate Peace, students respond to "The Cheating Student Dilemma" as 1984's seniors did, and they use Kohlberg's stages to determine the level of Gene's moral development, supporting their responses with examples from the novel. Again, in view of Gilligan's research, significant changes need to be made in this exercise.

Rationale: Following Bybee and Sund's suggestions, this activity asks students to evaluate several things: their own level of moral development, Huck's or Gene's level, and each other's opinions. Also, it necessitates thinking about abstract concepts and involves performing operations on operations (viewing something based on another's theory).

Outcomes: Students liked this activity. First, they were anxious to see how their responses rated on Kohlberg's scale, and, second, they were surprised that the levels suggested as Huck's level of moral development ranged from one to six. Perhaps Huck cannot be rated accurately on Kohlberg's scale since he received conflicting messages from his heart and head. None of the class of 1984 discovered this possible problem with my assignment, a discovery which certainly would indicate that a student is thinking at Patricia Arlin's fifth stage. More direct teacher questioning could help students realize this problem. Despite this, the activity is valuable, not so much because of the student answers as of the thinking processes involved in determining answers.

In 1985, students rated Gene's level of moral development from three to five, a smaller range than with Huck. They responded with interest to the activity, and became involved in its following discussion.

In future implementation of this exercise, I would make vast changes. First, Gilligan's research should be presented beside Kohlberg's stages, after students have responded to the "Cheating Student Dilemma," so that students can use both criteria to evaluate their personal responses. I anticipate students' finding elements of female moral thinking in their own responses. Students should also have an opportunity to debate the validity of both Kohlberg's and Gilligan's work, using their own experience as basis. Then, they can use examples from the novels to discuss a character's moral development and follow that character's moral development in the novel.

*+Themes. In a brainstorming session, students suggest possible themes for the novel (in both 1984 and 1985). No one's answer is judged; they are merely recorded. When students seem to have exhausted all ideas, the class reviews the list together and either scratches some themes for which there seems to be no supporting data from the novel, or discusses the data proving a theme valid.

Rationale: By requiring abstract thinking and hypothetical reasoning, as well as by asking students to challenge their themes, this activity follows Bybee and

Sund's extensions of Piaget's theory of cognitive development. Both brainstorming and suspended judgement make the activity incorporate lateral thinking.

Outcomes: Students preferred this method of discovering themes to my usual discussion-suggestion method. That the seniors thought of many themes pleased me.

#Black Brainstorming. Two groups of students brainstorm all the associations (words, phrases, objects, names) that come to mind about black Americans on a large piece of white posterboard-- with black Magic Marker. Again, I emphasize the brainstorming rules of suspended judgement and no right-no wrong. When associations dwindle, class reconvenes, and each group presents its poster. If anyone is curious about a particular association, a group member explains it as well as s/he can, but no judgement is allowed. Students hang their posters in the room, along with previous butcher paper activities, and no processing takes place at this point.

Rationale: The brainstorming helps students become more conscious of the negative connotations the words "black Americans" bring to mind. It could allow a perceptive student to relate some of the associations to Jim's character in Huckleberry Finn. The activity follows de Bono's guidelines for brainstorming and suspended judgement.

Outcomes: The posters were crammed with associations, mostly negative, a result I had expected. In circulating between the groups, I noticed something interesting taking place in both of 1984's groups: when an association touched on Jim, the next few associations were more positive. The students themselves seemed amused and surprised at some of their more outlandish associations. They were becoming very good at brainstorming and lateral thinking!

#Discussion Questions for Caged Bird. Students receive discussion questions on the novel, which they are to answer as they read and which we use periodically for class discussions. Certainly the idea of discussion questions is not new. What makes these questions different is that forty-three percent are at a concrete (comprehension of facts) level, while fifty-seven percent require inferential and application level thinking about the novel, formal level thinking skills. Samples of the questions appear below.

- (p. 3) In what ways does Maya feel "displaced?"
- (pp.4-7) What are Maya's feelings about the store?
- (p.7) Maya says the stereotype of the sing-song cotton pickers is wrong. Why?
- (pp.8-9) Do you think Maya's assessment of children in the face of lameness is accurate? Why or why not?
- (p.11) For whom does Uncle Willie pretend to be not crippled? Do you think he succeeded in convincing them?
- (p.11) Why does Uncle Willie endure the pain of standing straight?

- (p.13) How does Maya use personification to describe the "character" of the store?
- (p.17) What is an anachronism?
- (p.20) What things show you how totally removed from the white community Maya feels?
- (p.22) What is "powhitetrash"?
- (p.24) Why does Momma "sag" when she sees the girls coming?
- (p.27) In what way does Momma "win?"
- (pp.44-52) What are Mother Dear and Daddy like?
- (pp.58-62) What is Maya's quandary about adults, especially Mr. Freeman?
- (pp.65-67) Why does Maya at first not tell about her rape?
- (p.69) Do you agree with Maya's statement about some people being addicted to violence?
- (pp.73-77) How does her family handle Maya's post-rape depression?
- (pp.78-79) In what ways does Mrs. Flowers seem so different from the other Blacks in Stamps?
- (pp.90-91) What psychological wound has the rape caused Maya?
- (p.100) What causes Baily to take the chance with the train?
- (p.111) "How long--" until what?
- (p.113) In what ways is the boxing match on the radio more than an athletic contest?
- (p.120) What does Maya mean when she says, "After being a woman for three years, I was about to become a girl"?

Rationale: These questions require both concrete and formal cognitive thinking skills, and they involve several tasks that Bybee and Sund suggest: synthesis, evaluation, criticism of ideas and personal opinions.

Outcomes: The students reacted favorably to these questions, and the discussions resulting from them were stimulating. A few of the 1984 students, Lea, Brad, Angie, and Kathy, made some profound observations about Maya and prejudice. Most of all, some of the nine seniors openly admitted with amazement that they "didn't know it was that bad." One student's question was, "Why would ANYBODY get

pregnant at seventeen and not even consider college? Why did so few of these people do something to help themselves?" When I asked the class what they thought, Vicki stated that it seemed as though they saw no alternatives. What most blacks did was expected by both black and white society. On a few days, these seniors left the room at the end of the hour hushed and seeming in thought--something unusual for them. Perhaps besides stimulating formal thought, we also generated alternate ways of viewing the results of prejudice.

Though the 1985 seniors' responses were not so dramatic, emotional response occurred on some days. Discussions in 1985 were also thoughtful and productive. The combination of activities and novel made the unit one to which this group responded more favorably than to any I had taught them. While for the 1984 group, the most emotionally laden responses were to racism, in 1985, students responded powerfully to rape and its aftermath. For one student, our discussion brought to the surface pain similar to Maya's, and that student was able in counseling to begin dealing with emotions repressed before the novel. When I offered the option of an alternate novel, the student expressed seeing personal value in I Know Why the Caged Bird Sings and continued with the unit. Though stretching for the teacher, responses like this humanize teaching literature and make my teaching more gratifying.

#Pictures From The Black Book. The teacher distributes copies of provocative photographs and illustrations from The Black Book¹⁰² throughout the room. Students circulate, looking at the pictures and making a mental note of what emotions each of the pictures arouses in them. After students have had a chance to look at all of the pictures, they return to their seats, and one by one, the teacher holds up each picture and elicits students' emotional reactions to it, asking if the pictures challenged any of their assumptions about black Americans. After the exercise, students hang the pictures on the wall beside their brainstorming posters about associations they made with black Americans.

Rationale: Besides helping students view situations differently and challenging assumptions, skills essential to lateral thinking, this activity encourages students to engage in abstract thinking through formal questioning techniques and creates disequilibrium, essentials to formal level reasoning.

Outcomes: Responses varied, but emotions were strong both years. Though five of 1984's students admitted learning some new information, none of the 1985 group stated they changed any of their assumptions. Even so, perhaps they learned a greater understanding of Maya's situation. This activity was successful in generating affective responses.

#"Black and White Uptight." To follow "Pictures From The Black Book," this film presents interviews with whites and blacks dealing with observations, experiences, and feelings about racism. It points out phrases that people use without realizing their patronizing overtones.¹⁰³ Following the film, the teacher presents a list of questions for discussion which help the students probe their own feelings about black Americans. For example one question asks, "Are you comfortable with black people? Why do you believe you are, or aren't?" Another reads, "Does an interracial couple make you uneasy? Can you identify the reasons for your reaction or the sources of it?"

Rationale: Since the film contains a myriad of different viewpoints, it should help students generate alternate views of blacks. At the very least, the film shows other people challenging assumptions, which de Bono feels necessary to lateral thinking. Also, most of the questions use formal questioning techniques.

Observations: Puzzling to me, student response to the film was not enthusiastic; they seemed bored. Either the approach of film and questions was too direct, causing their resistance, the issue of prejudice was simply becoming too familiar, or the format of film followed by discussion questions seemed too ordinary. I won't include this activity in the unit again because of its possible detracting from the rest of the unit.

#"The Eye of the Storm." This film substituted for "Black and White Uptight." Showing an Ohio teacher's 1970's experiment with her third grade class, the film documents the children's reactions to being told one day that blue-eyed people are better than brown-eyed people, and the next day that the opposite was true. While the inferior children lost privileges and their academic performance declined, the superior children jeered and exploited them. The seniors responded to the film first by listing the effects of prejudice on the students, and second by sharing their lists and emotional reactions with the class.

Rationale: The film helps students generate alternative views of prejudice. Since fostering prejudice was incredibly simple for the teacher, common assumptions about prejudice come into question, and the seniors viewed in the film how impressionable children are. Both the equilibrium that Piaget mentions and de Bono's challenging assumptions are inherent in the film.

Outcome: This activity was one of the most effective in the unit. The seniors were truly amazed at the power of the children's hate and hurt. With its skillful photography and understated narration, "The Eye of the Storm" communicated the emotions of racism better than any discussion alone could have. This will be a part of the unit in the future. A sample student response to the film appears in the Appendix.

#Poetic Devices in Narrative Prose. This activity is intended to emphasize the poetic and lyrical qualities of Maya Angelou's writing, showing students that poetic qualities can enhance other genres, as well. First, the students recall definitions for as many poetic devices (metaphor, simile, personification, hyperbole, onomatopoeia, alliteration, and assonance) as they can, with the students listing them on the board with an example or definition for each. The teacher helps students process the devices and their definitions and examples, changing or contributing to the definitions. The students receive an assignment to find at least one example of each device in the novel and evaluate its use and appropriateness in its context. When they finish, the students explain their examples and evaluations to the whole class.

Rationale: Searching for poetic devices involves using abstract concepts, classification skills, and evaluation, all mentioned by Bybee and Sund. Additionally, finding similes and metaphors and discussing them helps the students increase their awareness of analogies, a skill de Bono mentions.

Outcomes: Both groups of seniors received the assignment cheerfully, although some found hyperboles and alliteration difficult. The following discussion helped students realize that these devices do not exclusively belong to poetry alone, but can enhance any kind of writing.

#The Lemon Game. A guest speaker, Dr. Mayda Nel Strong, presented this activity to the class. Dr. Strong, a licensed clinical psychologist with a private practice and a part-time instructor of psychology at Otero Junior College, brought with her in 1984 a friend, Gloria Lopez, from Austin, Texas. Students, teacher, and Dr. Strong moved chairs into a circle. Each student had brought to class a lemon, and, after introductions, Dr. Strong asked students to get to know their lemons-- to study the lemon and discover its uniqueness. Then, each participant introduced his or her lemon to another person, after which Dr. Strong combined the groups so that everyone could introduce his or her lemon to the whole group. Dr. Strong asked students to be aware of their feelings but not respond as she made a statement: "They all look alike." The participants placed their lemons in the center of the circle, whereupon Dr. Strong stirred the lemon pile with her hands and asked students to come in pairs to find their lemons. Dr. Strong elicited student feedback concerning their feelings about their lemons and about her statement.

Rationale: In doing this exercise, participants begin to realize an analogy; the lemons can be people-- complete with distinguishing characteristics, even personalities. Certainly, the activity coaxes them to generate an alternate way of viewing prejudice, for they are placed in the position of "guardian of the victim" of prejudice. Edward de Bono would probably approve of the exercise for

those reasons. The students use a hands-on approach that simplifies the abstract concept of prejudice, and they use synthesis based on their feelings from the exercise to create the disequilibrium that can increase cognitive functioning. Certainly, Piaget's theory and Bybee and Sund's suggestions appear here.

Outcomes: The seniors were amazed that each lemon was different in size, shape, color, texture, markings ("brands from childhood," Angie said in 1984), and smell, which certainly challenged their assumptions about lemons. To Dr. Strong's statement about the lemons' being alike, 1984 students reacted defensively and angrily, they said, thinking, "That's not true!" or "You're insulting my very own lemon!" Although 1984's group made lemonade with the lemons after the game, Kathy refused to let us "cannibalize" her lemon. This activity must be repeated in future years.

1985's seniors found this activity to be the highlight of the unit. Sadly, this group had had few guest speakers in any subject area, perhaps a subconscious oversight of teachers aware of the class's problems. They responded well to Dr. Strong's skilled teaching and the novelty of the activity. Though the emotional responses they shared with the group were not as strong, they did make the correlation between the lemons and people, and they, too, had no trouble identifying their lemons from the pile.

#Relating Pictures to Maya. Following one of de Bono's suggestions for generating alternative ways to view visual material, the teacher places fifteen mounted pictures from newspapers and magazines at the front of the room. Students' instructions are two-fold: to pick a picture and to imagine and explain in writing what story the picture tells, and second, to choose another picture and assume that it directly relates to Maya. Instructions are deliberately broad to allow for more creative responses. They are to write a paragraph or two for each picture they choose. On a later day, the students read their responses to the class.

Rationale: This writing encourages students to create alternate ways of viewing the pictures, as well as alternate ways of viewing Maya and the events of the novel, both skills that encourage lateral thinking.

Outcome: Students seemed to enjoy this writing both years, and their responses were sensitive to the content of the pictures and to Maya. And, they seemed impressed with each other's work when they shared their responses. At the point of sharing the responses, I noticed to some extent with 1985's group, and to a large degree with 1984's, greater comfort expressing responses they might have kept to themselves before, for fear of looking silly. A sample paper from this activity appears in the Appendix.

#Maya at Cheraw. Used only in 1985, this activity asks students to imagine Maya a student at Cheraw High School and to write a few paragraphs describing a situation in which Maya participates. They are to create Maya's character and the situation as realistically, for both Maya and Cheraw, as they can.

Rationale: This exercise involves students' using contrary-to-fact assumptions and propositional thinking, both mentioned by Bybee and Sund. Too, the activity asks students to generate alternative ways to view Maya and Cheraw School, as de Bono suggests for lateral thinking.

Outcomes: The seniors found this exercise more fun than work; they responded well. This far into the unit, I could see growth in imagination and creativity. Though in the unit evaluation two students mentioned seeing little value in this kind of exercise, I believe they overlooked their increased freedom of expression.

#Maya: A Rape Victim. The teacher gives students a one-page summary of "Rape as a Stress Reaction" from the book Women: Psychology's Puzzle by Joanna Bunker Rohrbaugh.¹⁰⁴ First, the students read the selection to themselves, and then, with the teacher as leader, discuss the concepts mentioned so that they are clear to the students. Then, they relate the effects of rape as a stress reaction to Maya in writing; they decide for themselves which stages Maya experienced in the novel.

Rationale: By encouraging students to understand the abstract concepts in the Rohrbaugh selection and then to evaluate Maya's reaction to her rape on that basis, the activity necessitates formal level reasoning and creates a disequilibrium for students not familiar with manipulating psychological information. The assignment to compare the reactions on the handout and Maya's reaction creates a problem which students must solve by analyzing details from the novel, a higher level thinking skill.

Outcomes: Both years, students performed well on the assignment, with many arriving at conflicting conclusions about certain aspects of the comparison. Nevertheless, many made detailed comparisons using specific examples from the novel to support their conclusions. A sample paper from this exercise appears in the Appendix.

#Visiting the Black Past and Present. Dr. Strong conducted this class session, also, using several copies of articles from The Black Book.¹⁰⁵ Each student chooses an article, reads it, and presents it to the class, along with reactions to the article. Following a discussion of their reactions and summaries, Dr. Strong and the teacher present a short reading from Ntozake Shange's poetic drama For Colored Girls Who Have Considered Suicide When the Rainbow is Enuf.¹⁰⁶ The reading is a black woman's expression to her friend of the ugliness and hopelessness of her life in Harlem.

Rationale: The goal for the presentation is to increase students' abilities to view information in new ways, in this case, student's assumptions about the black female experience in America. Presenting their reactions to both activities involves synthesizing details to create an overall impression of the works.

Outcomes: Both groups of students responded emotionally and thoughtfully to the activity, reactions quite different from their reactions to the initial brainstorming. This session was a wonderful way to end I Know Why the Caged Bird Sings.

*#Final Paper. The teacher presents a writing assignment which involves using outside references as well as the two novels. Their papers are to evaluate aspects of the two novels, using examples and direct quotes from the novels and outside sources. Six teacher-made choices are possible, or a student can create a different topic that fulfills the requirements of outside source, evaluation, and direct examples. Possible topics include comparing and contrasting Twain's and Angelou's views of racism in the two novels, comparing and contrasting Huck's (or Gene's) and Maya's awareness of inner morality, comparing and contrasting the maturing process of each of the main characters, or comparing and contrasting the writing styles of the two authors.

Rationale: Because it involves evaluation, the writing requires formal reasoning patterns, as well as including, hopefully, expressions of some of the students' changes of opinion.

Outcomes: Some of the student papers were sensitive and detailed; however, some of them were disappointing, because a few student papers did not show the complete week's work the seniors were allowed. Even so, the other papers showed definite increased flexibility of thought and increased creativity. A sample final paper appears in the Appendix.

THE RESULTS

My initial observations after each Astute Activity were favorable, with only three exceptions. The activities stimulated most students' thinking; increased their awareness of many issues, including racism and rape; increased their courage to share ideas with the class; increased the creativity of their work, both written and spoken; and matured their writing. In written evaluations of the unit, the students all said they saw value in the unit. Some remarked favorably on Dr. Strong's effective presentations and the increased awareness they felt about racial issues. A suggestion for improvement of the unit mentioned by several students was not to "overkill" the racism issue. Though not all of these outcomes are measurable, they alone indicate the units were a success for the students. I will certainly teach them again.

Though I used no formal measure of creativity, I also perceived students thinking in slightly freer ways. Classroom discussions became more lively, and assignments that required creativity showed more spontaneity and individuality. It seemed they began to realize that more

important than what the teacher wants is what approach one might like to take with an assignment. Creativity, at least with English assignments, increased during the unit.

I, too, received some unmeasurable rewards from the unit. Teaching with Astute Activities challenged my creativity and my intellect; indeed, I should have administered the L.A.T.C.F. to myself to prove my improvement in level of cognitive functioning! Other rewards were seeing my students challenged perhaps more than they ever had been challenged in English. I saw students' faces full of emotion during some class sessions; they were thinking and feeling more than before Astute Activities. The success of these activities has prompted me to add similar activities to my other English classes and become more aware of activities like these in lesson planning. Astute Activities are both a way to add variety to lessons, and a way to challenge and motivate all my students, not just gifted students.

Statistical results for 1984's seniors, at least on the L.A.T.C.F., were not impressive. On the L.A.T.C.F., four students' scores improved, two remained the same, and three students' scores even fell. Measured on a scale with a score of one as preoperational, two as early concrete, three as late concrete, four as early formal, and five as late formal, the average scores for all nine students improved slightly from a 3.19 on the pretest to a 3.36 on the post test, both between late concrete and early formal.

Because my personal impression of the results indicated there should have been a greater improvement in scores, I evaluated the students' final papers for the unit according to Dr. Brazee's unpublished writing evaluation scale of cognitive functioning. Here, the results proved quite different. With this scale, which uses the same scores of one through five, the average of the eight student scores (one student did not complete the paper) was 4.25, just at early formal. I believe this score to more accurately reflect the students' levels of cognitive functioning.

Each of the five 1984 students with L.A.T.C.F. scores below three visibly showed a dislike for the test, saying they did not see any reason for detailing their thinking. One post test with little written on it said, "I don't like these." I believe their attitudes colored their scores.

1985 seniors' scores on the L.A.T.C.F. also showed only slight improvement in overall cognitive functioning. As in 1984, the same scale of one to five was used. While three students' scores remained the same, one improved, and one declined. Overall, however, the average pre test score was 3.2, while the average post test score was 3.25, between late concrete and early formal, and a slight improvement. As in 1984, I felt these students' level of cognitive functioning and degree of improvement in thinking skills to be slightly higher than the test results show. Again, student response showed at least two 1985 students' motivation low in detailing their thinking.

Having saved a sample of 1985 seniors' writing about The Grapes of Wrath from just before the unit, I could compare pre and post scores on Dr. Brazee's writing scale. Here results were slightly different, for the average score rose from 3.3 on the pretest to 3.7 on the post test. Though not as impressive as the 1984 students' post score on the writing scale, the improvement indicates some cognitive development during the months of the unit.

On following pages appear breakdown charts of the students' scores and average scores on the L.A.T.C.F. and the writing scale.

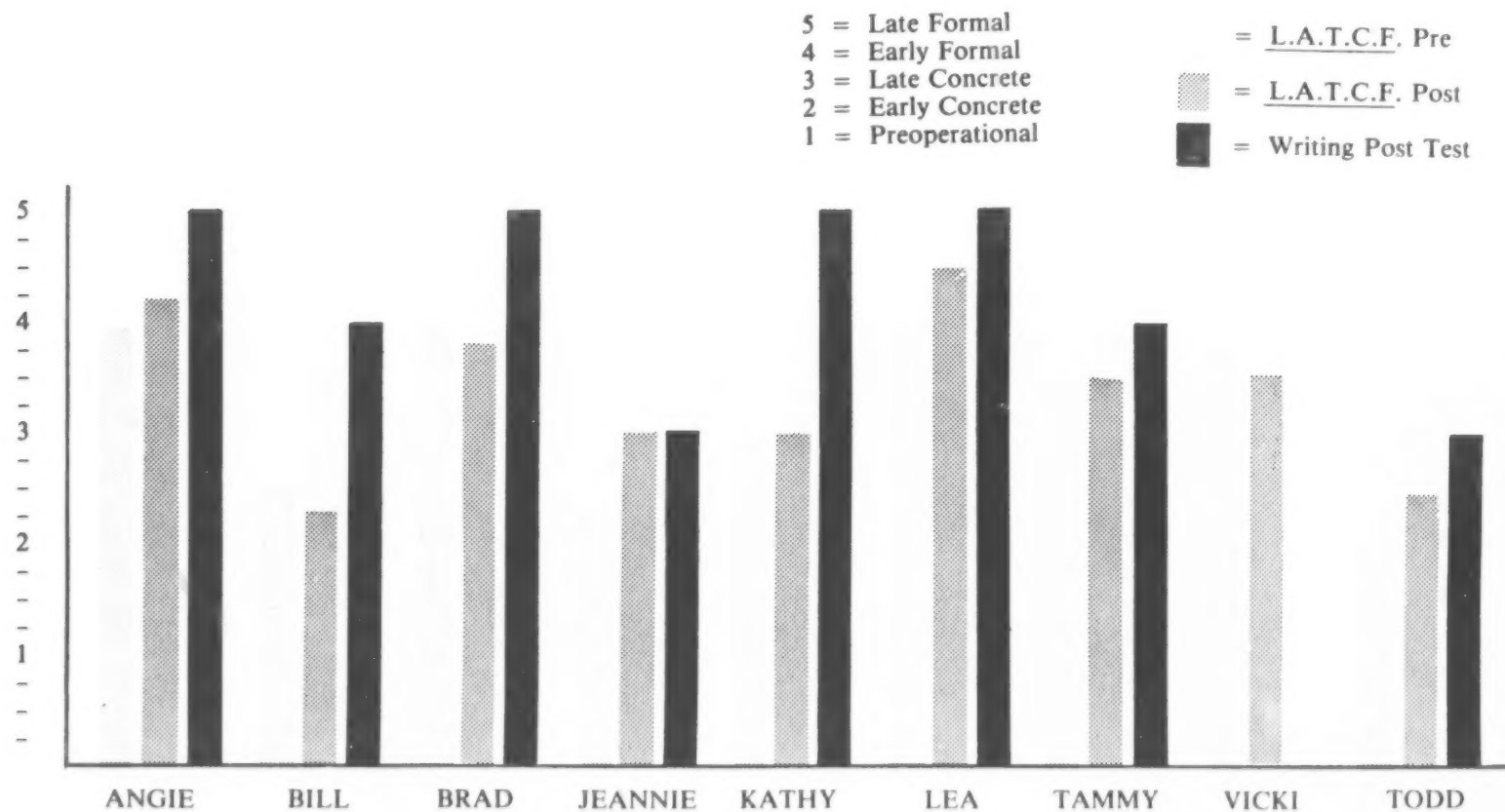


Fig. 1.

COMPARISON OF 1984 L.A.T.C.F. SCORES BEFORE AND AFTER
 UNIT AND WRITING EVALUATION SCORES AFTER UNIT

- 5 = Late Formal
- 4 = Early Formal
- 3 = Late Concrete
- 2 = Early Concrete
- 1 = Preoperational

■ = L.A.T.C.F. Pre

■ = L.A.T.C.F. Post

■ = Writing Pre Test

■ = Writing Post Test

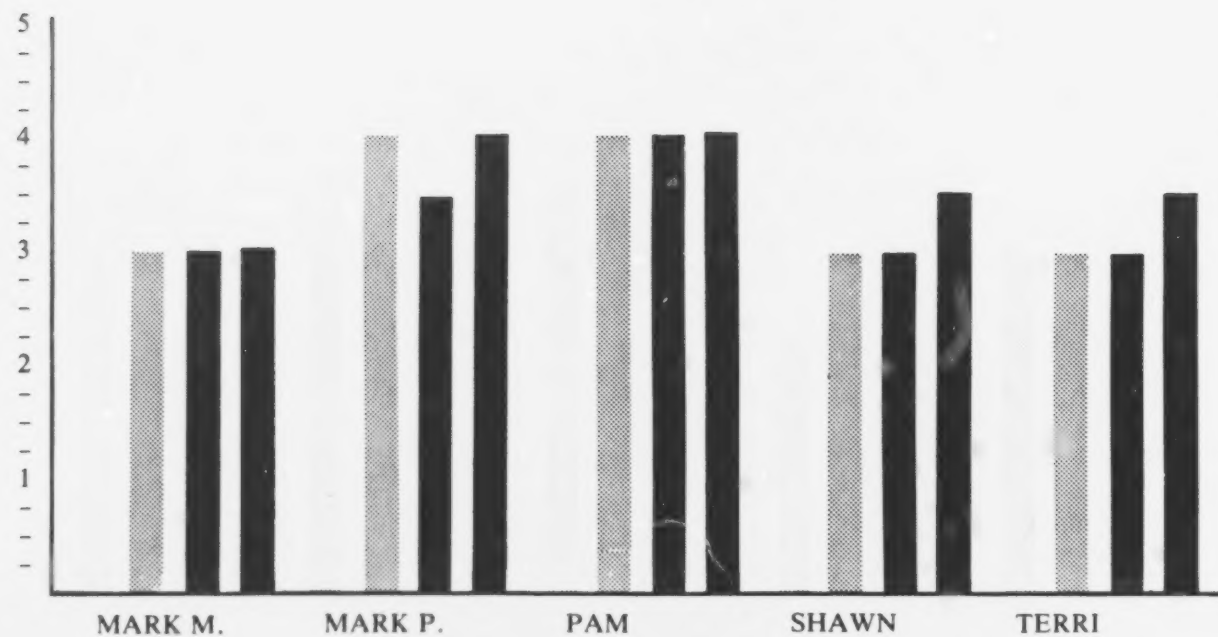


Fig. 2.

COMPARISON OF 1985 L.A.T.C.F. SCORES BEFORE AND AFTER
UNIT AND WRITING EVALUATION SCORES
BEFORE AND AFTER UNIT

CONCLUSIONS AND IMPLICATIONS FOR RURAL EDUCATION

The unit with its Astute Activities was a success on several levels. First, though the students' scores on the L.A.T.C.F. showed only minimal average improvement, some improvement did occur, with some students improving measurably. Second, Dr. Brazee's "Cognitive Level Rating Scale for Written Responses" showed that in the area of writing, the 1984 seniors were functioning at a higher level than the L.A.T.C.F. shows. I believe that their low scores could have two causes, including a lack of motivation to do well on the L.A.T.C.F., or minimal interest in the anecdotes which I may not have revised well enough to interest them.

Individually, I feel some of the 1984 seniors' scores on the L.A.T.C.F. are accurate. Angie's scores, for example, seem close to my judgement of her level of cognitive functioning before (early formal) and after (slightly higher early formal) the Astute Activities. Although Brad's initial L.A.T.C.F. score was probably close to accurate, his post test score likely fell because he did not do his best work on the post test. Jeannie's scores

both before and after the unit were also close to my judgement of her cognitive ability (ranging from early concrete to concrete), and even her writing evaluation showed a score of late concrete. All three of Jeannie's scores were probably accurate, and her showing improvement since the pretest is encouraging. Lea's scores all seem close to accurate to me, and her progressive improvement from L.A.T.C.F. scores of early formal to formal to her writing evaluation score of late formal seems realistic. Vicki's L.A.T.C.F. scores of almost early formal are probably accurate, but having no writing evaluation score with which to compare them provides insufficient data for comparison.

On the other hand, some 1984 scores seemed inaccurate. Bill's L.A.T.C.F. scores are definitely below his capability, both before the unit and after. His writing evaluation score of early formal reflects more accurately his level of cognitive functioning; Bill's grades by the end of the unit were worrying him, and he chose the writing assignment, with its large number of possible points as an occasion to do his best, thereby raising his grade. Brad's scores on the L.A.T.C.F., though they are closer to accurate than Bill's, fall much lower than they should have; had he taken time to record his reasoning, the scores would have been higher. Brad's writing evaluation score is accurate. Kathy's L.A.T.C.F. scores seem too low, and interestingly, her writing score seems too high. Perhaps

more accurate for Kathy would be an average of her L.A.T.C.F. scores of three and her writing score of five, resulting in a score between late concrete and early formal. Tammy's L.A.T.C.F. scores between late concrete and early formal seem slightly too low considering her insight in the language arts area; closer to realistic would be her writing score of early formal. Both at the early concrete level, Todd's scores are definitely too low, a result of his failure to explain his reasoning on the L.A.T.C.F. Although his final paper is not an example of his best writing about literature, its score of late concrete is close to his level of cognitive functioning in language arts.

In 1985, I felt the L.A.T.C.F. scores and the writing scores to more closely reflect the students' performance and ability. Although Shawn seemed to be the only student whose performance on the L.A.T.C.F. varied by a significant margin from my higher perception of his ability, his low score could reflect lack of motivation and frustration with tests in general. Even so, Shawn's L.A.T.C.F. score was the only one to improve, showing, perhaps, a combination of less fear, more motivation, and higher cognitive level. Though I was disappointed in Terri's scores, I believe they were close to accurate; Terri is an above average, hard-working student whose level of cognitive functioning I initially overestimated. The other 1985 seniors' scores on both measures seemed accurate.

My disagreement with some students' test scores on the L.A.T.C.F. is not a reflection on the test itself; it is a reflection of student attitudes and teacher error. I would like to continue to use the L.A.T.C.F. to test other high school students' levels of cognitive development, establishing a norm for Cheraw High School. This would enable my more accurate judgement of the seniors' scores, compared to other Cheraw High School students' scores. Additionally, I would like to use the writing scale on other high school students' writing, establishing a Cheraw High School norm for that test, too.

Despite my questions about the students' performance on the L.A.T.C.F., the Astute Activities enabled students to improve their average scores on the test and to achieve in all cases a higher score on the writing scale. Students liked the unit, excepting a few activities, and the material was challenging and interesting to them. Moreover, I enjoyed teaching the unit and, as a result, now include many more non-traditional activities in my other classes. No doubt, teachers themselves can improve American education simply by using educational theorists' suggestions and implications for increasing students' cognitive and creative development.

This study contains implications for rural school districts. Because of budget and funding problems, some rural districts like Cheraw's are in danger of being closed. Moreover, the majority of legislators and

educators emphasize the disadvantages of rural school districts, without acknowledging their advantages over urban districts. Rural districts must be able to furnish documentation of their successes and of their continuing efforts to provide quality education. Such documentation can assume many forms-- forms like writing assessments, curriculum development, school climate projects, and projects teachers themselves initiate.

I have not the naivety to believe Astute Activities can themselves change American education or rural education, but I believe they have improved the education my 1984 and 1985 seniors received in their rural school. For over two months, they thought and experienced and created in new ways; they used their imaginations with increasing confidence. They saw their teacher challenged and motivated by what they created. They saw learning become fun. Those accomplishments contain great value in themselves, but test results even show an increase in their level of cognitive functioning. For seniors anticipating their senior trip in two weeks, that, indeed, is an accomplishment! Though all American students should experience similar kinds of learning, rural schools, especially, hunger for means of survival, and that survival could ultimately depend on the quality of rural education. Rural high school graduates embody the strength of their education; they are Quality Control. Prepared for an information society with cognitive and creative skills,

they will speak well of rural schools. Unprepared, they will prove rural schools inadequate. Astute Activities' success is only an indication of what rural education can become if more teachers are willing to take some risks.

First, improving rural education requires teachers' willingness to change to meet the demands of an evolving society. Teacher education figures prominently here, for only by remaining abreast of society's changes and future job markets can teachers become as effective as they need to be. This involves time and work: graduate schooling, attending conferences and workshops, reading, and establishing professional networks, not only in one's field, but also in other areas. Today, Astute Activities are successful for Cheraw's students, but they will become obsolete. Astute Activities will be modified and supplemented, and other techniques will take their place. Being aware of the evolution itself is central to rural education.

Second, rural education depends on its teachers' willingness to nourish students' freedom of expression. This is a frightening task for teachers accustomed to traditional classrooms where the teacher teaches facts and the students learn them. Allowing students creative and intellectual freedom involves relinquishing the kind of control that places students always in the receiving position. Not to be confused with allowing inappropriate classroom behavior, this kind of freedom allows students

freedom to search and think and create. During the unit with Astute Activities, I encountered fewer student interruptions and less inappropriate behavior than before, an indication that they found the units more consuming. Since the traditional American educational system often squashes students' desire to think and create freely, the teacher's comfort with relinquishing the quarterback position is essential for students to freely express.

Third, rural teachers and districts must communicate to educators, legislators, and communities the innovations that are improving rural education. That Astute Activities reached fourteen seniors in two years affects only them and me. If the existence of Astute Activities or of other teachers' innovations reaches more teachers, state legislators, and parents, rural education can only benefit. For example, in late 1984, Colorado's Joint Budget Committee, having heard dozens of rural educators' pleas for adequate funding, reacted with modest admiration when Cheraw School's Superintendent Elvin Mosier presented Cheraw students' consistently high achievement test and A.C.T. test scores. Did Cheraw receive more funding? No. But the effect may have been more powerful had more than half of the rural districts presented such data. How much more support rural schools could enlist with informed communities, educators, and legislators! Joint Budget Committees will find suspending judgement on rural schools more justified armed with data.

For me, and for Cheraw's students, Astute Activities is not a panacea, but a beginning. More than any other teaching methods I use, these activities facilitate a kind of learning that students can't forget. And, as more and more teachers begin to embrace the ideas of theorists like Piaget and de Bono, not only can rural students reap the rewards of more effective teaching, but also rural schools can, with facts, document their progressiveness.

APPENDIX

Contents in Order of Appearance.

L.A.T.C.F. as Revised for Seniors

Pictures:

"Huck's, Jim's, and Pap's Values"

Sample Paper:

"Gene's Values"

Sample Paper:

"Twain on Society and the Sublime"

Sample Paper:

"Steven Bots Dead of Drowning"

Sample Papers:

"Finny at Cheraw"

Pictures:

"Draw Huck's Conscience"

Pictures:

"Black Brainstorming" 1984

Pictures:

"Black Brainstorming" 1985

Sample Paper:

"Relating Pictures to Maya"

Sample Paper:

"Response to 'The Eye of the Storm'"

Sample Paper:

"Maya as Rape Victim"

Sample Paper:

"Final Paper-- 1984"

Sample Papers:

Student Evaluations 1984 and 1985

The L.A.T.C.F. as Revised for Seniors. The Language Arts Test of Cognitive Functioning is authored and copyrighted by Edward Brazee.

Anecdote #1

Detective Cooper is called by an old friend, Bob Smith, to investigate some unusual happenings at the Smiths' house. Cooper learns the following information: (1) The Smith house at 130 Dogwood Glen was broken into on March 18, 1985; (2) \$10,000 worth of silverware and jewelry was stolen. Upon further investigation, Detective Cooper found that: (1) Joe Gallagher, a former employee of Smith's, had once threatened to get even with Smith; (2) Smith's neighbor, Kevin Long, has a new \$10,000 car, yet he hasn't worked in one and one-half years, and (3) Bob Smith's oldest son, James, 19, ran away from home the night of the burglary. He hasn't been seen since.

Questions:

1. Who committed the burglary at the Smiths' house? Explain how you know this. How did you decide on one person over another?
2. What other information would you need to solve the crime?
3. How did you solve this problem? What did you have to know to solve this problem?

Anecdote #2

Tom, 15 years old, wants desperately to go to a rock concert at Mile High Stadium with several of his friends. Tom's mother and father do not want him to go to the concert for several reasons: (1) the concert will last too late into the night, (2) Tom just isn't old enough to attend something like this, and (3) they know that rock concerts are not always safe places to be.

Questions:

1. Why do you think Tom's parents do not want him to go to the rock concert?
2. Are the reasons listed in the anecdote good reasons?
3. How did you solve this problem? What did you have to know to solve this problem?

Anecdote #3 (Short Story Events)

1. Number each of the following events in the order you think they must have occurred and explain on your paper why each item was placed as it was:

____ Jason thought about running away from home.

____ Jason is having trouble with algebra and biology.

____ Jason and his parents decided to sit down and talk about their problems.

____ In spite of his good intentions, Jason becomes depressed and runs away again. He doesn't come back this time.

____ Jason ran away from home, but he was caught by the State Patrol and brought back.

____ After talking with his parents, he decides that he can work on things and improve them.

2. What clues (specific words and phrases) caused you to order the events as you did?

3. Are there any other ways the story could be organized? Explain.

4. What might Jason's problems be? Explain.

5. At the end of the account, what options did Jason have?

6. How did you solve this problem? What did you have to know or do to solve the problem?

Anecdote #4

One of the most important parts of a short story are characters. Consider the following characters.

(1) David, 23 years old. A paper containing notes which may give him a job promotion is swept out the window and sticks to a ledge ten feet from the window. Since David's apartment is on the 23rd floor, he thinks carefully, but finally decides to....

(2) Mary, 34 years old. She works for a television station at the same job for ten years. Mary has taken several college courses on her own time and volunteered for many extra projects at work. It is discouraging for her because younger people in her office have been promoted, and she hasn't. She decides to....

(3) John, 42 years old. He works in an automobile factory. His son Steve, 16, wants to quit high school and go to work in the factory with his father. His father becomes furious every time quitting school is mentioned. John wants Steve to go to college. He decides to talk to Steve one more time to tell him....

Questions:

1. What will each person do or say? Why? Explain.

2. Are the three people in these anecdotes realistic? Explain.

3. Why do people work? What do they get out of working?
4. What do these people have in common? Explain.
5. How did you solve these problems? What did you have to know or do to solve them?

Anecdote #5

Anne Smith is a senior at a small town high school in Arizona. She is 17 years old and has brown hair and blue eyes. She plays on the school volleyball team, sings in the school chorus, and babysits for her neighbors' small children. She loves to ride horseback and has won trophies and prize saddles in rodeo competition. After high school, she plans college preparation to become a surgeon.

Fred Gray is a 16-year-old sophomore at a high school in Chicago, Illinois. He is a good tennis player and swimmer, plays the violin in the school orchestra, and works in a day-care center after school to make spending money. In his spare time, Fred makes movies in his home work-room and helps around the house. After high school, Fred wants to go to veterinary school.

Questions:

1. List the similarities and differences between Fred and Anne.
2. What did you have to know to solve this problem?

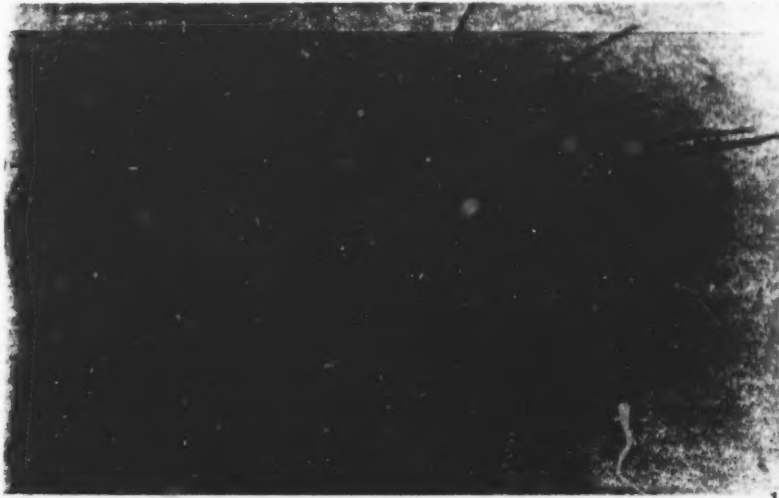
Anecdote #6

During a routine check of the school after a student council dance, Julie, one of the council members, finds that the door to the high school office has been pried open. The entire office is in shambles, and pop has been poured on many of the files. Julie remembers seeing a sophomore near the door earlier in the evening when she needed more refreshments from the office. When Julie questioned the sophomore, he said that he was getting something from his locker. Julie hadn't thought anything unusual at the time, but now.... Worse yet, the sophomore she saw has been in trouble all year, and one more incident will guarantee his expulsion from school. Thinking quickly, Julie....

Questions:

1. What happened here? Explain.
2. What will Julie do about this situation? Explain.
3. How did you solve this problem? What did you have to know or do to solve this problem?

Pictures: "Huck's, Jim's, Pap's Values."

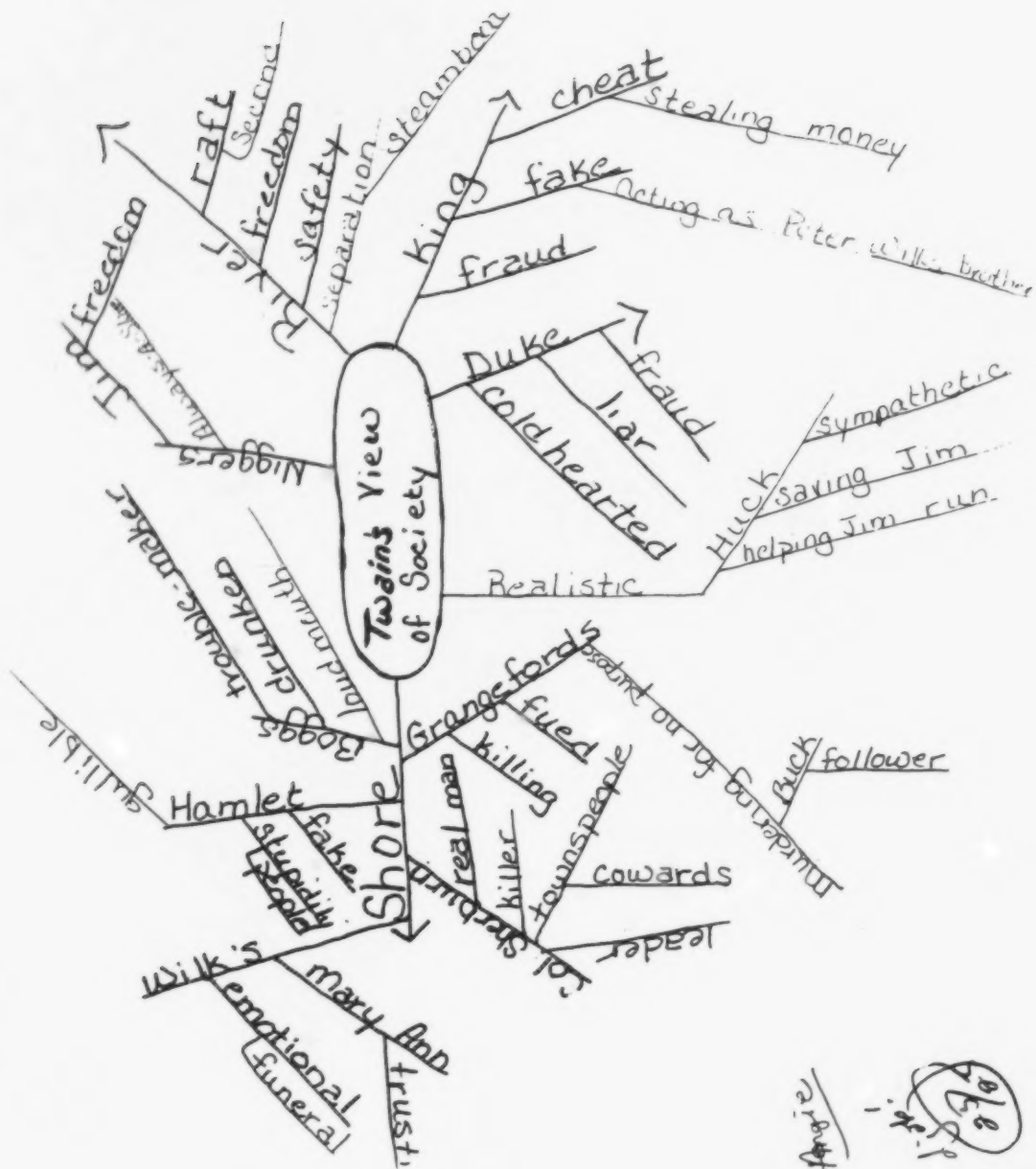


Sample Paper: "Gene's Values."

Mark O'Neil



Sample Paper: "Twain on Society and the Sublime."



Sample Paper: "Steven Bots Dead of Drowning."

24/25

A passing stranger's point of view

benny

While walking down a small path running in front of a group of houses my ear was suddenly caught by the sound of shouting. I knew right away that someone was in trouble because the shouting was only coming from one person. The other I never heard say a single word. So I decided I needed to check this out further when I heard a slap and someone fall down. I stood a short distance from an open door and saw a very small child getting up and dusting herself off. Then she just stood there and looked into space. When trying to get a closer look I ran into a milk can and made a terrible racket. When I looked at the child I found that she had never even flinched or turned to see what was going on. I decided that the child had to be deaf.

When did
you ear?
learn to
walk?
misplaced
attention

The man who had been shouting at the child saw the whole episode and suddenly looked weak. He came to me, a total stranger, and wept, "I didn't know."

Great, Tammy!

Sample Paper: "Finny at Cheraw."

30/30

Pam

Finny and I are dating. We have gone out on a Saturday night and I was given strict orders to be home at 12:00. When we come in at 1:30 my mother is waiting up for us.

I would be very worried and scared. Finny is calm and not worried in the least. He tells my mother that some friends of ours invited us to their house to watch some movies and we didn't realize the time. He apologizes and says it was an honest mistake for the sake of fun.

My mother would probably be a little angry at him at first, but after he explained she would probably think he was all right. She would respect him for the explanation and maybe even think a little higher of him for it.

dialogue

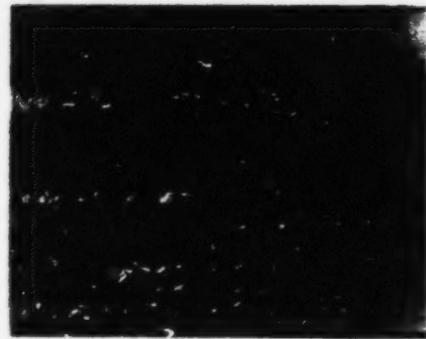
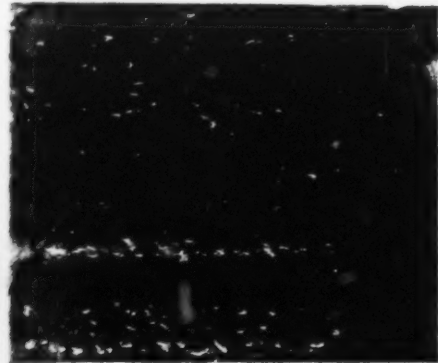
Sample Paper: "Finny at Cheraw."

1. Finny's being athletic is a very big part of the basketball team. He is high scorer every game and if you don't get along with Finny it doesn't hardly seem like you play at all. But if you do you could seem almost as good as him because of his superb passing skills. The coach has little rules and Finny got caught by Mr. Moiser with a chew, which is against the rules. For breaking this rule you get kicked off the team for two weeks. Districts are a week away, and without Finny the team hardly has a chance of going to state. Two days before Finny got caught a J.V. player got kicked off the team for the same reason.
2. After practice last night Finny was asked to go to the coaches office to talk. When the coach told Finny he had to be kicked off and wanted a explanation. Finny replied that he was just trying the chew for the first time, and Mr. Moiser catching him was a simple case of bad timing. Mustain fell for that and told Finny not to do it again. I was glad that he didn't get kicked off, since he is the best player on the team. But some of the kids thought that it wasn't fair that the J.V. player

Pictures: "Draw Huck's Conscience."



Vicki, Lea, and Kathy
think about Huck's con-
science as Bill looks on.



Angie, Jeannie, and Tammy
work on Huck's conscience.



The three groups'
versions of Huck's
conscience.

Pictures: "Black Brainstorming" 1985.



MARK P.



TERRI



MARK M.

Sample Paper: "Relating Pictures to Maya."

K. please
copy all

Eng.

Todd

1. a policeman upset after his first killing
2. a russian cosack
3. a westerner whose car broke down
4. Two whimps arm Wrestling
5. Two Polacks coming to america
6. A mexican sneaking into america
7. a lady trying to figure out how to get her brain back in.
8. Two people doing no rob in the forest
9. 2 k.ds Playing in the snow

I love
it

The building in this picture represents Maya getting raped
here is the story from the Building's view point

Here I stand so young and strong,
so free and proud. I really enjoy life
even though some people deface me.
I had it made until one day. At all
started early one morning, a crew of people
with explosives start going thru me.
I begged them to quit but to no avail.
I don't remember any thing after that because
I passed out but when I woke up
I was in pieces.

Wow!
What a perceptive
anecdote!
Super Job!

Sample Paper: "Response to 'The Eye of the Storm.'"

20/20

If Maya was in third grade and walked into the class room, when they were in the middle of that brown eyes and blue eyes lit. She probably be shocked and so would the kids, because they seemed as though they would exclude her at first and she would shy away from them, but probably by the time it was over, they might accept her better after they realized that even if there a different color that they are all equal. If this happened before her rape she might of been a little more outgoing, but if it happened after it she probably would hold back and stayed mostly to herself and not participated in full the most of the things that went on in school. unless she might gain some trust in the children there.

Mark M

good!

good observation!

Sample Paper: "Maya as Rape victim."Good Job!!
Mark

Maya was almost like
a full grown Rape victim a
true exception that she didn't
understand what happened to her.
She felt like there wasn't any-
thing wrong - it just hurt. she was
stunned by what happened and also
felt guilty - as if it was her fault.

Good observation!

Maya Angelou went through
the "Rape Trauma Syndrome" as
every other rape victim goes. She
became withdrawn and wouldn't
talk. (The Controlled Style). She
thought she had done something
wrong and deserved such punishment.
She did something that few
Rape victims do - she went out
to the library - because she was told to
do so.

child's
reaction

As a result of the rape
she trusted nobody but herself.
She thought every body knew a-
bout it and became even more
withdrawn and non-talkative. She
thought that nobody respected
her and would tease her if she said
anything. Then she would be forever shamed.

You & Me Kid!!!

145
15

9770

No two people are alike, each person is different and each has his own feelings. As a society we tend to categorize people into certain groups based on the way they look. After we categorize we alienate and discriminate. The victims of these situations often has mixed feelings. The Caged Bird and Thick Skin are good examples of how an oppressed person can feel inferior, superior, and equal in the face of our passing society.

Good job, Lee!
Super job at developing a unique thought; providing this.

When a person or group is alienated and discriminated against one of the most common feelings created is inferiority. In the Caged Bird graduation day is a prime example of the dominating class suppressing the weaker class. When Mr. Donleavy told of the great changes in store for the white in education and the black school in athletics, it took the excitement out of graduation and made the students who excelled feel worthless. The students and parents felt inferior and hopeless, the atmosphere had been slaughtered by a white man.

Good use of example.

Another thing that can cause a person to feel inferior is when they are constantly discriminated against and used as the main character of a joke. When Mary watched the poor white trash girls laugh her mamma she felt low, and helpless. I think Jim when Huck played the practical joke on him, Jim felt terribly hurt and unwanted. Huck had let Jim believe Jim was dreaming about the terrible fog. When Jim found out the truth we can pretty well tell how disgraced Jim felt by his words, "En when I wake up en fine you back ag'in, all safe en sound, de-wards come, en I could 'a' got down on my knees en kiss yo' feet, I's so thankful. En all you wuz thinkin' bout was how you could make a fool uv ole Jim wid a lie." Being the subject of a joke is really no fun, it's downright degrading.

When people who have been discriminated against get tired of never being good enough they have visions of strength and become

superior. In the Caged Bird Maya became strong when even her father made her feel low. Her father's girlfriend insulted Maya's mother and Maya became defensive, very powerful and violent. Another example is when Momma took Maya to the dentist and she filled in the parts she couldn't hear with the things she wanted to hear. She told Bailey of a momma who dominated the white dentist. Another good example of the real strength created from being suppressed is when Momma stood on the porch humming in the presence of the poor white trash girls, who were trying to tear her down. Many people have tried to tear down the discriminated, but it only seems to make the inferior people get tough and strong enough to withstand the worst of punishment.

superior example for those who have your thesis.

word choice? the downward in

Also, when oppressed people find someone to dominate they may experience a fake feeling of superiority. Take for example Jim's control over the Grangerford's slaves. He talks of them as

his slaves, "My's mighty good
to me, dese niggers is, for
whatever I wants'm to do for
me I don't have to ask'm twice,
no way." Jim actually was in
the same situation as the
niggers after all he was black-
too! The difference was that
he did feel superior and
treated the niggers like slaves.

why did he
feel superior?
idiot?

Once a suppressed individual
finds his self-worth he can over-
come his oppressed feelings and
become an individual equal to
those who see him as a person.
A classical example of this is
how Huck views Jim as his friend,
an equal. Another good example
is after Maya ran off from
her father's house and found
other runaway kids in a junk-
yard. They took her in and
allowed her to become one of
them, a true part of their lives.
Also, when Maya traveled
to Mexico she was more readily
accepted and therefore treated
as more of an equal than in
the white section of Slamps.
Perhaps, if more people allowed
the discriminated to be equal,

agreement

equality would exist.

Obviously, you can see how many mixed feelings can occur from being oppressed. If society, as a whole, could work at accepting people for what ^{agreement} they can give to the individuals, maybe discrimination would become a thing of the past. Remember all people are different in their own way) parallelism and that all people have a right to be treated as equal human beings. Also, even you can become a victim of discrimination because you are different from everyone else.

Lea Barrett

Sample Student Evaluations 1984.

4-10-84

I thought the units were done very well. I felt the off the wall activities were especially good. They gave the units a needed change of pace. Don't change a thing!

Apr. 10, 1984

Kathy

The unit was fun except for the amount of reading we had to do in one night. Some of the exercises were all right. I think we ^{were} wore out on prejudices. I liked it when ~~oooooo~~ Maeda Nel Strong came out, she was neat!

April 10, 1984

I personally did not enjoy reading Huck Finn. I found Caged Bird very good but parts of it made me very angry because of some similar experiences that I had and did not want some of those emotions rekindled.

Kicki

The Unit in general was good.
don't change anything

Sample Student Evaluation 1985.

This is
not Jerry's
paper

- A. I thought both novels were excellent, even though they're somewhat depressing. They both taught us lessons about life — A Separate Peace had a message about friendship and I know why the Caged Bird Song told us about prejudice and how it was for blacks growing up. I thought the discussions and activities were good for both.
- B. I thought you had planned things well and I enjoyed the things we did. I can't think of anything to change or add to it.
- C. Having the guest speaker was different than what we usually do and I really did enjoy her.

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- ⁷Goertzel and Goertzel, p.269.
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²⁸ Bybee and Sund, pp.242ff.

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³⁰ Arlin, pp.602ff.

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³³ Bybee and Sund, pp.162ff.

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³⁵ Gilligan, p.10.

³⁶ Gilligan, p.18.

³⁷ Gilligan, p.19.

- ³⁸Gilligan, p.54.
- ³⁹Gilligan, p.79.
- ⁴⁰Gilligan, p.87.
- ⁴¹Gilligan, p.105.
- ⁴²de Bono, pp.9ff.
- ⁴³de Bono, p.12.
- ⁴⁴de Bono, p.48.
- ⁴⁵de Bono, p.39.
- ⁴⁶de Bono, p.58.
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- ⁵³de Bono, p.22.
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